THE FARMERS' CABINET,

AND

AMERICAN HERD-BOOK.

DEVOTED TO

AGRICULTURE, HORTICULTURE, AND RURAL AND DOMESTIC AFFAIRS.

Perfect Agriculture is the true foundation of all trade and industry.—LIEBIG.

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BY JOSIAH TATUM,

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For the Farmers' Cabinet.

Better Butter.

"LET her boast of hydrant streams,
And like a Granny Grumble sputter,
'Bout better peaches, richer creams,
And better bread, and better butter."

DOES the editor of the Cabinet recollect a controversy carried on in doggerel rhyme through the papers, some quarter of a century since, on the comparative merits of the rival cities, New York and Philadelphia, by their respective champions? I trow not, for he was young then, and we have abundant evidence that weightier matters have occupied his attention since. Well, the above is an extract from one of these effusions by the New Yorker, and is pertinent only, as it shows that even her opponents admitted, by implication at least, that Philadelphia was supplied at that day, with better bread and *better butter*, than her neighbour;—the Nickerbocker admits that his "little sister Phil," then possessed *both* of a quality superior to his own. We may well query, if as much would be granted now, or, could be fairly claimed for our butter. New York, for instance, annually supplies the chief seaports east of her, with a large portion of their butter for the six winter months—it is not all of equal excellence, but that from Dutchess county, I can testify from having used it many years, is, much of it, of very superior quality—it is made during the grass season, and up to the ensuing midsummer retains all the richness, and nearly all the sweetness, of good fresh made grass butter. What county in the interior of Pennsylvania, can boast of such a product? With a soil and climate at least equal to that of her neighbour, we rarely see a firkin of butter from this source that would bear inspection, that is fit, when produced in market, for the table; or, if perchance it have some good qualities, the want of packing, and the presence of butter-milk, soon destroy them. These remarks apply only to butter from the interior, with which our market is so abundantly supplied each autumn, and for which the producer ordinarily realizes no more than six to ten cents per pound, when delivered in market. The consequence of this state of things is, for a considerable part of the year our tables are furnished with winter made butter, necessarily inferior in quality, yet at a pretty high price. Now what we want, it is just what is greatly to the interest of the farmer to supply, an article produced from grass during the summer and fall months, well cured, and well packed in

new tubs or kegs—for glazed vessels are never safe, and stone-ware is too expensive for common use.

The production of good butter depends something on the breed, more on the keeping of the cow, but chiefly on the mode of curing and putting down; and I think it would be easy to prove the saying true, that "good butter is more easily—i. e. cheaply, made, than poor." Of two cows designed for the dairy, the one having no very bad qualities, and some good ones, valued at $10—the other, quite a superior animal, though not the very best, prized at $50—be sure to take the latter—if you have not money enough, don't buy either, till you can pay for the best; to begin with the poor one, would be to enter on the road to poverty, the other leads to wealth.

Clean cultivation and good seed, will, on most soils, secure a good pasture. Having thus a good cow, good grass, and good hay, a warm stable for winter, and kind treatment in every respect, will ensure the greatest product at the least possible expense.

So much has been said of the necessity of cleanliness in the dairy, that it would seem unnecessary to add another line or another precept—there is a single item, however, on which I would say a word to all, but to the *milk-men* supplying the city, especially:—much of the milk exposed for sale, has, on standing a few hours, a *dark sediment*; I know of a few exceptions to this—doubtless there are many—and these men may be found asking and obtaining a higher price for their milk than their less cleanly neighbours. I suppose every dairyman knows where this black precipitate comes from; if not, I can tell him—it is from the udder and belly of the cow—in the process of milking, it has been disturbed by the hands and sleeves of the milker, and fallen into the pail in the form of dust, or sometimes in larger portions, and these have been thoroughly divided and intimately mingled with the other contents of the vessel, by the quick streams poured upon them. If the animal be well bedded, a hand-brush freely used upon these parts, before the pail is brought near, will generally sufficiently cleanse them; not unfrequently, however, a resort to water is found essential to purity. "A word to the wise," &c.

With cleanliness, good butter, possessing the quality of keeping a twelvemonth, may always be made by regarding a few essentials—*thoroughly* expel the butter-milk—season with the best fine salt—pack closely in new clean casks—this will secure good butter; but there are degrees of excellence, depending on the greater or less completeness with which the two great conditions, freedom from butter-milk, and exclusion of air, by careful packing, are complied with. The manner of accomplishing the *first*, might be left to the option of the dairyman, provided it be *certainly* done—but certainly it is not usually done, though all make some attempts to do it. The hand is better than a ladle or wooden spatula, for this purpose; but a better mode, one that lessens the labour and renders it more efficient, is, to clothe the hand with a piece of linen, the cloth readily absorbing the fluid it comes in contact with; this method, I am assured, is pursued in making the Goshen butter, and I know it to be practised by some others noted for their success in this manufacture. But there is another mode more effectual still, and which I apprehend should be adopted by all, in putting down butter for future use; it consists in washing or kneading in cold spring water, using successive portions of water, till it comes away perfectly limpid. A sponge having fallen into a dirty pool, we may by compression, especially if a cloth be used beneath the hand, get rid of most of the water it contains, and the filth with it—but no one, I am sure, would think of saying it was quite clean, till it had been washed. I know there is a prejudice against bringing cold water in contact with butter, a sort of hydrophobia; and the practice has received, too hastily, I think, the unqualified condemnation of others; for instance, J. P. Kirtland, of Rockport, in an able article on "Butter Making," published in the Cleveland Herald, and copied into the Cabinet some months since, says: "Some persons destroy its richness and sweetness by washing out the butter-milk by means of cold water, a practice always to be avoided." Another writer over the signature "Old Dutchess," says: "Butter should be cured without the aid of water."

On the other hand, some of the most noted dairies in the vicinity of Dublin, supplying that city with fresh butter, practise washing it, I am assured, with spring-water. A writer in the New England Farmer, says: "In the large towns of Holland, of Flanders, and of Switzerland, where they make a great quantity of butter, they knead it in its whey—when it is well consolidated, and has no lumps, and appears quite rich; they wash it in several waters, until the last pours off quite clear." Doubtless some of the colouring matter, and a portion of its sweet milky taste are lost by this process, especially if continued too long a time, and hence the propriety of kneading it in its own whey till consolidated, as practised in Holland and

elsewhere. The Massachusetts Agricultural Society's highest premium for butter, $100, was awarded some time since, to six tubs, the manufacture of William Buchop, of Vermont,—twenty-seven lots were offered for premiums on this occasion, and the second award, of $50, was to Luther Chamberlain, of Massachusetts, for six tubs also—Chamberlain had been long noted for producing good butter, and *did not wash with water*—the committee of awards, admit that they had some hesitation in choosing between the two lots, but say, "they based their final decision on the fact, that *Mr. Buchop's butter was equal at least to Mr. Chamberlain's, and from the manner it was put down, appeared more likely to keep.*" This was his manner of making: "The milk is kept in tin pans and churned every morning, if the weather is warm—*the butter-milk is removed by frequent washing in water*, and four lbs. of salt and one lb. of sugar used for each hundred weight of butter—packed in wooden vessels and set in a cool place." The merits and demerits of washing butter, appear to be nicely appreciated by a practical French writer, in the following sentence taken from the Journal before quoted: "Fresh butter is distinguished by a mild and agreeable flavour, the less it is washed the more delicate and fine it is. *But in this case its delicacy exists no longer than from one day to the next*, particularly during great heat. This delicacy is owing to the milk which remains with it, and it is that which prevents the butter from keeping, by communicating to it a sharp sour taste. Thus you cannot dispense with freeing the butter from milk, excepting when it is to be used immediately. That which is intended for keeping, cannot be too carefully attended to in this respect. To procure butter of an exquisite flavour and extreme delicacy, it must be washed finally with new milk; the cream of this new milk is incorporated with the butter, and communicates to it its sweetness and delicacy. Like butter that has some of the butter-milk remaining in it, however, this will not keep well."

On the whole, then, though good butter, that will keep sweet at least a year, *may be put down*, without washing, during any part of the grass season, yet we have sufficient evidence that most farmers of the interior fail to do so; and surely a great good would be effected, could they be induced, by observing the *two cardinal conditions*, to effect a change in this respect. In making, *expel the butter-milk*—in packing, *exclude the air*. The first is accomplished most certainly by cold water—the second by packing close in new casks, containing 50 to 100 lbs. each, and made of white oak—the salt should be fine and of the best quality; ladies who are particularly nice in this matter, make it still finer by the rolling-pin before using—the butter should always stand twelve to twenty-four hours after salting, and then be worked over, *using the linen cloth* under the hand, till all the salt-water, now collected in small drops, is absorbed—now pack, and when the cask is full, add an inch of dry salt, and head up—or, if pickle be preferred to cover the surface, boil and skim it first, and apply it when cold—keep in a cool place—it seems not material to the keeping of butter, whether sugar be added or not—salt-petre should never be used. Though to make butter of the highest flavour, cream should stand in summer but twenty-four hours, it is generally considered sufficiently often, if kept in a cool place, to collect it three times in a week.

As evidence that neither our climate nor soil is defective, it may be remarked, no market, perhaps, can furnish more delicate or richer specimens of fresh butter, than that presented during the grass season in our own; and it may not be too much to say, that the summer and fall butter is generally good, *very good* when it finds its way to market within a day or two of the time it is made; but unless kept in a place cooler than most cellars, it loses its sweetness about as soon as new milk would if kept in the same temperature: this serious defect can proceed, I think, but from one of two causes; the presence of butter-milk—or, from the excellent flavour and creamy sweetness of much of it when quite new, there is reason to apprehend that the practice prevails to some extent, of washing with new milk—this, as we have seen, is utterly incompatible with its preservation, and no dairyman should hazard the experiment, who cannot, by attending market daily, sell his produce within twenty-four hours of the time it is made.

An extensive demand exists in our midst, for a sweet grass-made butter for winter use, and the interior counties of *this State* must supply it, or it will be imported from *elsewhere*—a process already carried on to some extent, and which, under existing circumstances, must rapidly increase. For the greasy rancid material that now abounds in every grocery store, under the cognomen of "roll-butter," we would see substituted a rich, sweet article, retaining its good qualities through the year in all climates. For the misshapen masses of parti-coloured stuff that now encumber cart-tails, or barrel-heads at store doors, and which is, much of it, dear at the price asked,—about that of lard—we

would see the new firkin with its golden contents,—the joint product of the labour and skill of the thrifty husbandman and his accomplished daughter—meeting ready sale in this and foreign markets, at double the price of the present article. INDEX.

Philadelphia, Second mo., 1844.

From the National Intelligencer.

On Sheep Husbandry.--Where are the best Sheep-walks in the U. States?

To THE EDITORS,—Having been recently called upon to Americanise a popular English work on the *Diseases of Cattle and Sheep*, to be shortly published by *Lea & Blanchard*, my attention has been given to the subject in the broader aspect of sheep *husbandry* generally, as it exists in the United States. A slight examination of it leads me to think that the investment and distribution of capital and labour, in reference to that branch of American industry, are in a great measure misplaced, not to say unnatural. Can it be that the snow-clad regions of the North, where the feeding season lasts five months in the year, and where the price of land is so high, should constitute the most eligible sheep-walks to supply our large cities with mutton, and our rising manufactories with wool, in preference to the slopes and table-lands of the mountains in the middle and Southern States, and the prairies of the West, where land is so cheap and pasturage almost perennial?

Addressing some inquiries, as you will see, to the Hon. Mr. Clingman, of North Carolina, as to the natural advantages of the mountainous portions of that State for rearing sheep and wool, I have been promptly favoured with an answer, which, though written under circumstances not allowing the fullest development, is yet highly interesting, and, as it seems to me, worthy of general circulation. Therein, we have opened to our view, in one of the glorious "old thirteen," a district of *terra incognita* unsurpassed in salubrity, peculiarly adapted to the constitution of sheep, according to all experience and observation, where land is very low in price and of remarkable capacity for the production of the grasses, grains, and roots which form the basis of sheep husbandry in countries where it is most prosperous.

For a more detailed view of the subject in all its bearings, as to the characteristics of the various breeds, management, &c., reference is made to the forthcoming work already alluded to, which will embrace the letters here sent for your country paper. You will observe that the district of country described by Mr. Clingman, has the advantage of possessing unbounded water power, for manufacturing machinery, while it is surrounded by States that are great consumers of woollen manufactures, depending now for their supplies on either New or Old England. A company has just been formed in Boston, to invest another million of dollars in the manufacture of mousselines, a branch of manufacture new in this country, and demanding the coarser kinds of long-combing wool, which are accordingly already coming into greater demand. J. S. SKINNER.

House of Representatives, Feb. 3rd, 1844.

DEAR SIR,—Your favour of the 30th ult. was received a day or two since, and I now avail myself of the very first opportunity to answer it. I do so most cheerfully, because, in the first place, I am happy to have it in my power to gratify in any manner, one who has done so much as yourself, to diffuse correct information on subjects most important to the agriculture of the country; and, secondly, because I feel a deep interest in the subject to which your inquiries are directed.

You state that you have directed some attention to the sheep husbandry of the United States, in the course of which it has occurred to you that the people of the mountain regions of North Carolina, and some of the other Southern States, have not availed themselves sufficiently of their natural advantages for the production of sheep. Being myself well acquainted with the western section of North Carolina, I may perhaps be able to give you most of the information you desire. As you have directed several of your inquiries to the county of Yancey,—I presume from the fact, well known to you, that it contains the highest mountains in any of the United States,—I will, in the first place, turn my attention to that county. First, as to its elevation. Dr. Mitchell, of our University, ascertained that the bed of Tow river, the largest stream in the county, and at a ford near its centre, was about twenty-two hundred feet above the level of the ocean. Burnsville, the seat of the court-house, he found to be between two thousand eight hundred, and two thousand nine hundred feet above it. The general level of the county is, of course, much above this elevation. In fact, a number of the mountain summits rise above the height of six thousand feet. The climate is delightfully cool during the summer; in fact there are very few places in the county where the thermometer rises above 80° on the hottest day. An intelligent gentleman who passed a summer in the northern part of the county

rather the more elevated portion of it—informed me that the thermometer did not rise on the hottest day above 76°.

You ask, in the next place, if the surface of the ground is so much covered with rocks as to render it unfit for pasture? The reverse is the fact; no portion of the county that I have passed over is too rocky for cultivation, and in many sections of the county one may travel miles without seeing a single stone. It is only about the tops of the higher mountains that rocky precipices are to be found. A large portion of the surface of the county is a sort of elevated table-land, *undulating*, but seldom too broken for cultivation. Even as one ascends the higher mountains, he will find occasionally on their sides, flats of level land containing several hundred acres in a body. The top of the Roan, the highest mountain in the county, except the Black, is covered by a prairie for ten miles, which affords a rich pasture during the greater part of the year. The ascent to it is so gradual, that persons ride to the top on horseback from almost any direction. The same may be said of many of the other mountains. The soil of the county generally, is uncommonly fertile, producing with tolerable cultivation abundant crops. What seems extraordinary to a stranger, is the fact that the soil becomes richer as he ascends the mountains. The sides of the Roan, the Black, the Bald, and others, at an elevation even of five or six thousand feet above the sea, are covered with a deep rich vegetable mould, so soft that a horse in dry weather often sinks to the fetlock. The fact that the soil is frequently more fertile as one ascends, is, I presume, attributable to the circumstance that the higher portions are most commonly covered with clouds, and the vegetable matter being thus kept in a cool moist state while decaying, is incorporated to a greater degree with the surface of the earth, just as it is usually found that the north side of a hill is richer than the portion most exposed to the action of the sun's rays. The sides of the mountains, the timber being generally large, with little undergrowth and brushwood, are peculiarly fitted for pasture grounds, and the vegetation is in many places as luxuriant as it is in the rich savanna of the low country.

The soil of every part of the county is not only favourable to the production of grain, but is peculiarly fitted for grasses. Timothy is supposed to make the largest yield, two tons of hay being easily produced on an acre, but herds-grass, or red-top, and clover succeed equally well; blue-grass has not been much tried, but is said to do remarkably well. A friend showed me several spears, which he informed me were produced in the northern part of the county, and which by measurement were found to exceed seventy inches in length; oats, rye, potatoes, turnips, &c., are produced in the greatest abundance.

With respect to the prices of land, I can assure you that large bodies of uncleared rich land, most of which might be cultivated, have been sold at prices varying from twenty-five cents to fifty cents per acre. Any quantity of land favourable for sheep-walks, might be procured in any section of the county, at prices varying from one to ten dollars per acre.

The few sheep that exist in the county thrive remarkably well, and are sometimes permitted to run at large during the winter without being fed and without suffering. As the number kept by any individual is not large enough to justify the employment of a shepherd to take care of them, they are not unfrequently destroyed by vicious dogs, and more rarely by wolves, which have not yet been entirely exterminated.

I have been somewhat prolix in my observations on this county, because some of your inquiries were directed particularly to it, and because most of what I have said of Yancey is true of the other counties west of the Blue Ridge. Haywood has about the same elevation and climate as Yancey. The mountains are rather more steep and the valleys somewhat broader; the soil generally not quite so deep, but very productive, especially in grasses. In some sections of the county, however, the soil is equal to the best I have seen.

Buncombe and Henderson are rather less elevated—Ashville and Hendersonville, the county towns, being each about 2,200 feet above the sea. The climate is much the same, but a very little warmer. The more broken portions of these counties resemble much the mountainous parts of Yancey and Haywood, but they contain much more level land. Indeed the greater portion of Henderson is quite level. It contains much swamp land, which, when cleared, with very little if any drainage, produces very fine crops of herds-grass. Portions of Macon and Cherokee counties, are quite as favourable, both as to climate and soil, as those above described. I would advert particularly to the Valley of the Nantahalah, in Macon, and of Cheoh, in Cherokee. In either, for a comparative trifling price, some ten or fifteen miles square could be procured, all of which would be rich, and the major part sufficiently level for cultivation, and especially fitted, as their natural meadows indicate, for the production of grass.

In conclusion, I may say that, as far as my limited knowledge of such matters authorizes me to speak, I am satisfied that there is no region that is more favourable to the production of sheep than much of the country I have described. It is everywhere healthy and well watered. I may add, too, that there is water-power enough in the different counties composing my Congressional district, to move more machinery than human labour can ever place there—enough perhaps, to move all now existing in the Union. It is also a rich mineral region. The gold mines are worked now to a considerable extent. The best ores of iron are found in great abundance in many places; copper, lead, and other valuable minerals exist. That must one day become the great manufacturing region of the South. I doubt if capital could be used more advantageously in any part of the Union than in that section.

For a number of years past, the value of the live stock—as ascertained from books of the Turnpike Company—that is driven through Buncombe county, is from two to three millions of dollars. Most of this stock comes from Kentucky and Ohio, and when it has reached Ashville, it has travelled half its journey to the more distant parts of the Southern market, viz., Charleston and Savannah. The citizens of my district, therefore, can get their live stock into the planting States south of us, at one half the expense which those of Kentucky and Ohio are obliged to incur. Not only sheep, but hogs, horses, mules, and horned cattle can be produced in many portions of my district as cheaply as in those two States. This must ere long, become the great manufacturing region of the South, &c.

I have thus, sir, hastily endeavoured to comply with your request, because you state that you would like to have the information at once. Should you find my sketch of the region a very unsatisfactory and imperfect one, I hope you will do me the favour to remember that the desk of a member during a debate, is not the most favourable position for writing an essay.

With very great respect, yours,

T. L. Clingman.

J. S. Skinner, Esq.

Good effects of Draining.

At the late annual meeting of the Liverpool Agricultural Society, the president, Lord Stanley, said that he would state one instance of the practical returns which might be expected from thorough scientific draining.

In 1841, his father was about to enclose in the park at Knowsly, a tract of about 80 acres. Of this about 20 acres were strong clay land, with a very retentive subsoil, and the remaining 60 he remembered from his boyhood, as the favoured haunt of snipes and wild ducks, and never saw there any thing else. In the course of the first year, the 60 acres maintained—but very poorly,—during the summer, six horses; and on the 20 acres there was a very small crop of very poor hay. It was impossible for land to be in a poorer condition; and in breaking it up they had some two or three times to dig the plough-horses out of the bog.

In 1841, the whole of this land was thoroughly subsoiled and drained, and in 1842, what was not worth 10*s.* an acre, per annum, the year before, was in turnips, and on that land they fed off in five months, and fattened for the butcher, 80 beasts and 300 sheep, and afterward carted into the farm-yard 350 tons of turnips. In the present year they had a very fair crop of barley and oats, which his friend, Mr. Henry, would be very glad to show to any gentleman who felt any curiosity on the subject. Now he did not hesitate to say that that land was, at that moment, worth 30*s.* an acre. The outlay upon it for pulling up old fences, thorough draining, tilling, and breaking it up, amounted just to 7*l.* 10*s.* per acre, giving just 20*s.* for every 150*s.* of outlay, and giving to the landlord a permanent interest of 14 per cent. on the money laid out on that unpromising ground. It happened that in the same year they took into their own hands land which had been abandoned by the tenant as perfectly worthless. It was a large field of 22 acres, of very poor sandy soil. It was drained at an expense of 2*l.* per statute acre, and in the first year they fed off on that land 120 sheep, the remaining part of the turnips being carted to the farm-yard; and he ventured to say, that at the expense of 2*l.* per acre, the land was increased in value 10*s.* per acre to the landlord, and as much to the tenant.—*New England Farmer.*

In an Address lately delivered before the Prince George's Agricultural Society, Md., by Thomas Duckett, Esq., he makes the following wholesome remarks:

"Every consideration which can address itself to our understandings and our hearts, enjoins upon us rigid economy in the management of our affairs, and augmented industry and skill. In all verity, economy must become emphatically the order of the day. We must practice it ourselves; daily instil it into our sons and our daughters; and their mothers must inculcate the lesson, not only by their precepts, but examples."

Wonderful Cow.

In the ninth number of the "American Agriculturist," published in the city of New York, we noticed an account of one of the most extraordinary cows for butter we have ever heard of—particularly in the large quantity of butter produced from so small a quantity of milk. The only certain test of the dairy properties of a cow is in the milk pail and churn.

Mr. Schenck, the owner of the cow, says, "I never, until the summer of 1842, kept her milk separate from three other cows, and then for experiment, I tried it only one week. She then gave 18 quarts per day, and her milk made 15 pounds of butter."

Now 18 quarts per day, would be 126 quarts per week, from which 15 lbs. of butter were produced, which would be one pound from a fraction over eight quarts of milk.

"On the 21st of May," continued Mr. S.,* "I commenced keeping an accurate account of her milk, and the butter it made. She at no time exceeded 16 quarts per day, and on the 10th of June, being 21 days, she made 65½ pounds of butter of the best quality." This almost exceeds credulity. Sixteen quarts per day, for 21 days, makes 336 quarts, from which 65½ pounds of butter were produced, which would be one pound of butter from five quarts of milk! Why, it is generally considered a good cow, whose milk will produce one pound of butter from ten quarts. But how can we doubt, when Mr. S. says, "This was so incredible, I could scarcely believe my own senses, although I weighed the butter at every churning myself. I thought I would try it again for a day or two. I kept one day's milk by itself, 15½ quarts on the 15th of June, and churned it. All the milk was churned, as it appeared to be unnecessary to cream it: I had 3 lbs. 8 ounces of butter ready for the table. The next day it was also tried, and it produced 3 lbs. 4 ounces. The first day above, the milk was put in two pans—the other day only in one pan, which may have made the difference of a quarter of a pound."

In September following, she gave only eleven and twelve quarts per day, and made 10 lbs. of butter per week, which would be at the rate of one pound of butter from eight quarts of milk.

The celebrated Durham cow, Blossom, bred by C. Henry Hall, Esq., of Harlem, is said to have given in 1840, in one week, 247½ quarts of milk, or more than 35 quarts per day—from which were made 13½ pounds of butter. In the summer of 1841, two months after calving, she gave in one week, 253½ quarts, or 36 quarts per day, which yielded 17½ lbs. of superior butter. On the 13th of July, fourth month after calving, she gave in the morning, 12½ quarts; noon, 11½ do.; evening, 11 do.;—35 quarts. She gave 16 quarts per day, up to the time of calving. This is one of the largest products as to quantity of milk on record. But in the first place, it took over 18 quarts of milk to make one pound of butter, which is three and a half times as much as in one case of Mr. Schenck's cow, and two and an eighth as much as in another, showing most conclusively, that it is not always the quantity, but the quality of the milk that produces the butter.

The Durham cow, belonging to J. H. Powell, Esq., about which so much ado was made a few years since in Philadelphia, produced in three days, 8 lbs. and 13 ounces of butter, which would be at the rate of 20½ lbs. per week. She yielded repeatedly 26 quarts per day, which would give one pound of butter to nine quarts of milk. One quart of her cream produced 1 lb. 5½ ounces of butter. In one case, two minutes, in another case, only three seconds, were required to convert the cream into butter. Belina was considered one of the most extraordinary cows at that time. But Belina has been beaten since by a cow we find recorded in Mr. Colman's "Fourth Report of the Agriculture of Massachusetts." The cow belonged to Mr. Barrett, of Northampton, Mass. This cow was milked for one fortnight, every eight hours; at each milking yielding a pail full, holding 10 quarts—the weight of the milk averaging daily 49½ lbs. Her milk has yielded daily, 2 lbs. 5 ounces of butter, making 32 lbs. 6 ounces in fourteen days. But here is the staggerer. "From one milking alone, 1 lb. 6 ounces were made, which will give 4 lbs. 2 ounces of butter per day, from one cow."

The famous Haskin's cow, the mother of Mr. Jaques' celebrated "Cream-pot" breed, gave sometimes 18 quarts, averaging from 14 to 15 quarts per day. Her milk was noted as being extraordinary for its richness. The milk of two days in the month of April, made 2¾ lbs. butter, and was made from two and one-sixteenth quarts of cream. Allowing 14 quarts of milk, which is the lowest amount per day, it took over 10 quarts to produce one pound of butter, which is double the quantity of that to Mr. Schenck's cow, in one trial. So we may safely say, that Mr. Schenck's cow is the most extraordinary cow, for butyracious qualities, we have on record, and in fact we have no knowledge of any in Europe, or the world, that equals her in the richness of her milk.

* See current volume of Cabinet, p. 162.

In a list of 65 remarkable cows, furnished by Mr. Colman in his Report, the average is about ten quarts of milk to produce one pound of butter.

In a trial of a two year old heifer, in the month of March, we made from eight quarts of her milk one pound of butter, which we thought at the time very extraordinary, and still think so. Although we have accounts of several that have produced one pound of butter from eight quarts of milk, we have never heard of but one, with the exception of Mr. Schenck's, that produced it from less, and that was a cow in Sheldon, Vt.; she gave 26 quarts in one day, and two milkings in twenty-four hours, produced 3 lbs. 14 ozs. of butter.—*Farmer's Monthly Visitor.*

History of the Neshanoc, or Mercer Potatoe.

Canfield, December 30th, 1843.

My Dear Sir,—I have succeeded by the aid of Mr. McLain, P. M., at Warren, and Mr. Gallony, P. M., Wilmington, Mercer county, Pa., in obtaining the history of the Neshanoc or Mercer potatoe. It is furnished by James Gilkey, the brother of John Gilkey, who produced it from the seed. It appears from James Gilkey's letter, that an article was published in the Mercer Luminary, on the 5th of June 1839, which was copied from a paper at Easton, Pa., pretending to give an account of the origin of the said potatoe, in which the writer, as Mr. James Gilkey says, was mistaken in some particulars of the biography of his brother, which he wishes corrected; I shall copy that part of his letter, according to his request.

John Gilkey and James Gilkey, moved from Westmoreland county, Pa., in the month of November 1797, and settled on a tract of land in what is now Slippery Rock township, Mercer county, Pa., about two miles east of Neshanoc creek. In the fall of the year 1800 or 1801, John Gilkey collected the balls or apples from his potatoes, which were of the varieties of red, blue and white. In the spring he planted the balls or apples in a bed in his garden. The seeds produced small potatoes, some of them not larger than peas, and of different colours. On being cultivated the second and third year, the potatoe arrived at its full size. How John Gilkey selected from the first production, Mr. James Gilkey does not know. Mr. Bevan Pearson first cultivated this potatoe in the vicinity of Philadelphia, from seed obtained in Mercer county, and thence named it after the county, where it was first produced. Mr. John Gilkey named it Neshanoc, after a creek from which the settlement was named. John Gilkey is dead, and his surviving brother is the only person from whom correct information can be obtained. His statement may be implicitly relied on. In the publication above mentioned, it was said, "that John Gilkey was educated for the Roman Catholic ministry, and that he was a poor solitary exile from the Emerald Isle."

"It is true he came from the county of Derry, in Ireland, when but a youth, with our parents and the rest of their family, in the year 1772, before the American Revolution. He was a Protestant, and not known to have changed his profession. He lived in Pennsylvania from 1772 to 1826, when he died."

The history of this excellent potatoe is probably as ample as you desire, and it is certainly as full as can at this day be obtained. Most sincerely, yours,

E. Whittlesey.

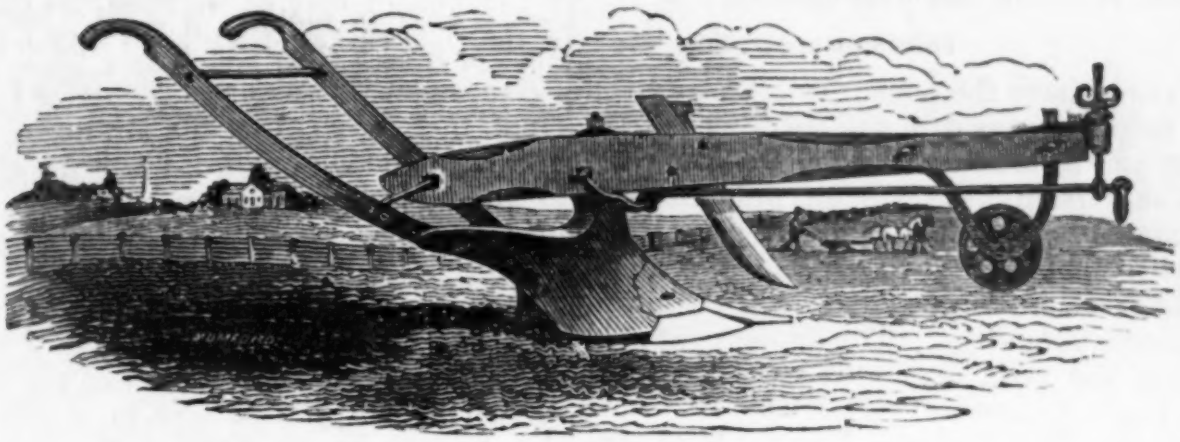
J. S. Skinner, Esq.

Lime.

The analysis of soils in a certain sense, and with a view to certain special objects, is far from worthless or deserving of neglect. One soil, by an easy examination, is found to be deficient in organic matter, and the advice may be—try the ploughing-in of a green crop; another may contain much vegetable matter in what is called an inert state—try upon that a dressing of hot lime; a third may contain sulphate of iron or alumina—drain, deep plough, lime, or marl, and summer fallow such land, and you take the shortest road towards a cure. Again, one may ask, why does lime not benefit my land? An easy analysis will reply, because it abounds in lime already, and must have a season of rest from liming; or because it is poor in organic matter and requires more liberal supplies of manure; or, if neither of these is the case, because your land requires draining. So the subsoil may be yellow and noxious when brought to the surface, or it may kill the roots of plants when they descend to it. Then a simple examination may prescribe draining and subsoiling, that the noxious matter may be washed out by the rains, and the whole mellowed by the admission of air. Or it may be rich in lime, which has sunk from the surface, and after frequent limings has produced a real marl bed beneath; and here the chemist may say, plough your land deep, and bring up the marl, and thus save the cost of lime for a season at least.—*Journal of Agriculture.*

THE BOSTON CENTRE-DRAUGHT PLOUGH,

Prouty & Mears' Self-Sharpening Patent.



DIRECTIONS FOR USE.

These Ploughs when at work, must not be set upright on the land side, but be permitted to take a bias, or leaning towards the furrow, as when standing on a floor or level ground, by which the soil will be broken up and turned completely over, with the precision of the spade. Should the point work loose, unscrew the share-bolt and insert a small piece of paper under the neck of the point, or the land side of the socket, and screw up tight. The coulter must be set in exact line with the land side of the plough, from the point upwards; and on no account are its services ever to be dispensed with; yet it need not extend lower than within three or four inches of the point of the plough; sufficient, if the surface of the land be cut three or four inches deep, the remainder breaking up easier than it can be cut. If the plough goes too much on the point, shorten the traces; by raising or lowering the wheel—care being taken that no more pressure be thrown upon it, than just sufficient to keep it on the ground—any depth, from three to ten inches may be carried with the greatest regularity, without regard to the inequality of the surface of the land, or the extra aid of the ploughman. More or less land, to the greatest exactitude, can be given or taken, by changing the direction of the clevis to the right or left. For two horses, mules, or oxen abreast, hook the rod into the centre notch, bring it to the centre of the clevis, and regulate the going of the plough, by giving more or less land, in the customary way. If by accident, a point break at the shoulder, reverse it, fold a piece of paper about the neck, and screw it into the socket. Worn-out points make excellent wedges for splitting wood. From 50 to 60 acres of land, according to the nature of the soil, may be ploughed with one point and share, at the charge of about one cent per acre, for Blacksmith's bill.

Editor of the Farmers' Cab.,

Dear Sir,—I send you an engraving of the Centre-draught plough, with the newly invented gearing of Prouty & Mears, requesting that you would be pleased to give it a place in the pages of the Cabinet. The advantages of the present arrangement are numerous and great: by it, the beam is secured from breaking, while the draught, extending back beyond the standard, gives a degree of pressure sufficient to keep the plough into the ground in case of obstructions, but it is so nicely adjusted, that it adds nothing injurious in the way of friction. The situation of the wheel, affixed to the beam on its land side, and extending beyond the parallel line of draught, enables the ploughman to carry the last, or closing furrow, without difficulty; the wheel passing along the open furrow to the left, and not running on the single furrow-slice, as it must do, when placed immediately under the beam. By the arrangement at the head of the plough, the smallest portion can be given or taken, whether in the elevation or depression of draught, or more or less land; the nuts of the screws working so easily, as not to require the use of the wrench, either for loosening or tightening them; while the whole combination is so mathematically adjusted as, in land free of stones or other obstructions, to carry the plough perfectly straight, set to any depth and width of furrow required, without the aid of the ploughman, otherwise than to turn it in or out at the ends of the lands: the ascending or descending of hills, forming no obstacle, the handles requiring neither lifting up or pressing down, as in the case when the swing plough is used on such occasions. By this new arrangement, such an uniformity of pressure and steadiness of draught are acquired, that the labour of the team and ploughman might be said to be reduced about one half.

These ploughs of several sizes, of most superior workmanship and the best materials, may be obtained of D. O. Prouty, at his Seed and Agricultural Warehouse, No. 176 Market street, Philadelphia.

Respectfully yours,

James Pedder.

Mint of the United States.

We take from the United States Gazette the following interesting letter from the Director of the Mint, in relation to the operations both of the parent establishment in this city, and of the branches.—Ed.

Philadelphia, Jan. 18th, 1844.

Sir,—I have the honour to lay before you the following report of the operations of the Mint and its branches, during the past year.

The coinage at the principal mint, in 1843, amounted to $6,530,043 20; comprising $4,062,010 in gold; $2,443,750 in silver, and $24,283 20 in copper coins; and composed of 10,405,233 pieces. The deposites of gold within the year, amounted to $4,107,807, and those of silver, to $2,357,830.

At the New Orleans Branch Mint, the coinage amounted to $4,568,000; comprising $3,177,000 in gold, and $1,391,000 in silver coins, and composed of 4,030,239 pieces. The deposites for coinage, amounted to $3,138,990 in gold, and $1,384,320 in silver.

The Branch Mint at Dahlonega, received during the year, deposites of gold to the value of $570,080; and its coinage amounted to $582,782 50, composed of 98,452 half-eagles and 36,269 quarter-eagles.

The Branch Mint at Charlotte, received deposites of gold to the value of $272,064; and its coinage amounted to $287,005, composed of 44,353 half-eagles, and 26,096 quarter-eagles.

The whole coinage in the United States, during the past year, amounts to within a small fraction of twelve millions of dollars, and exceeds by more than one half, that of any former year.

Of this coinage more than eight millions is in gold; showing a greater proportion to silver than has heretofore been presented.

The Branch Mints at Charlotte and Dahlonega, have each coined nearly double the amount which they have reached in any former year, and the New Orleans Mint nearly quadruple.

The production of the gold mines of the United States, as indicated by the amounts sent to the mints, exceeds that of any former year.

I have the honour to be Sir,
With great respect, your faithful servant,
(Signed) R. M. Patterson.
Director of the Mint.

To the President of the U. States.

The permanence of a fine carpeting of rich moat-grass, upon a portion of his farm, is ascribed by Mr. Purdie, to the spewings of the worms, apparently immensely numerous, which incessantly act as a rich top-dressing.—*Johnston's Lectures.*

Flowers and Shrubs.

Why does not every lady who can afford it, have a geranium or some other flower in her window? It is very cheap—its cheapness is next to nothing, if you raise it from seed, or from a slip; and it is a beauty and a companion. It was the remark of Leigh Hunt, that it sweetens the air, rejoices the eye, links you with nature, and is something to love. And if it cannot love you in return, it cannot hate you; it cannot utter a hateful thing, even if you neglect it; for, though it is all beauty, it has no vanity; and such being the case, and living as it does, purely to do you good and afford you pleasure, how will you be able to neglect it! We receive in imagination the scent of these good natured leaves, which allow you to carry off their perfume on your fingers; for good natured they are, in that respect, above all other plants, and fitted for the hospitality of your room. The very feel of the leaf, has a household warmth in it—something analogous to clothing and comfort.—*Exchange paper.*

Cow Yards.—The place for manure should be contrived so that it should not be exposed to any accumulation of rain water, but should receive the contributions from the sewers of the house, stables, cow-house, &c. The bottom should be paved, so that the drainage of the manure should run into a small cask, or well, adjoining it. Fresh earth should be regularly brought and spread over the manure, and the liquid in the well should be spread over it; by which means the whole compost would be equally rich, and the quantity increased to any extent that could be required; and the gas which arises from the stable manure in the shape of steam or smoke, and which is the very richest part of it, would be kept under and imbibed by the earth so laid on; and the quantity of earth should be proportioned to the strength of the manure with which it is mixed.—*Gardener and Practical Florist.*

The spontaneous abounding of sheep-sorrel—*Rumex acetosella*—is an indication of a dry and poor soil; it delights in sandy fields, and is apt to be found about old stumps of trees. When the farmer finds his fields overrun with it, he may conclude that they lack calcareous matter: there is too much acidity in the soil to admit of a healthy vegetation. A dressing of lime is perhaps, the best mode of remedying the evil.

For the Farmers' Cabinet.

St. George's Ploughing Match.

Mr. Editor,—I pray you, do me the kindness to insert the following extract of a letter, which I have this day received from Major John Jones, of Wheatland, on the subject of the ploughing match of the St. George's Society, which took place at Middletown, Delaware, on the 9th of November last, the report of which was published in the Cabinet for December. I beg to say, the Major's account is perfectly satisfactory, and it has relieved my mind from much uneasiness, arising from the idea that justice had not been done in the premises, without, however, suspecting for a moment, that the committee appointed on that occasion, had not performed their duty in perfect fairness; for if there be not probity in "Little Delaware," 'twill be in vain to seek it elsewhere. In the words of Dr. Ford, "They know their duty, and knowing, they will perform it." At all the exhibitions that I have attended, my only wish has been for a clear field and no favour; and finding that the failure of the Centre-draught plough at Middletown, arose entirely from accident, and not from design, I am quite willing to await the next meeting of the St. George's Society, for an opportunity of wiping out the seeming disgrace. I have the assurance of Mr. Daniel Corbit also, that the plough on that occasion, lost none of the favour it had so recently earned. Major Jones says:

"And now, as you may think that justice was not done to the Centre-draught plough at the Middletown ploughing match, I will state as follows: You are aware that I take an active part in these ploughing matches; in fact, the first match in this part of the State, was got up by me, expressly for the purpose of showing the superiority of the Centre-draught and Subsoil ploughs of Prouty & Mears; and you may see that my zeal in the cause has not abated; for on this occasion I had three of the principal teams, and as many of the best ploughmen, as good as this State, or even the 'West Riding of Yorkshire' could furnish. Two new ploughs had been sent to me, expressly for trial on this occasion; one by Mr. Sinclair, and the other by Mr. Eastman, both of Baltimore; and I gave them my best teams, as I had promised, for they had no other friend amongst us; while I expected many warm friends of the Centre-draught plough to be present; but to my astonishment, not one of them brought a plough in good order, the only one on the ground, being dull and rusty; and to this I hitched my mules, with a good ploughman to be sure, but one that had never seen the mules or a Prouty plough, until the hour of starting on that day. If I had not been anxious to swell the number of ploughs for contest, the Centre-draught plough would not have been brought forward in the state she was; but even in that crippled condition, I am free to say, she had the most friends. Come on then, next season as you promise; my teams shall be always at your service.

"As regards the self-sharpening principle of the Centre-draught plough, I must state, I put in 100 acres of oats, 70 acres of corn, and about 70 acres of wheat the last year, and did nearly all the ploughing with the two Centre-draught ploughs, with the same points and shares which you put to them while at my house in September, 1842; the other points and shares you sent, not coming to hand until since Christmas, 1843. And besides this, most of the hundred acres ploughed last fall for my next corn crop, was done with the same ploughs.

"John Jones."

And now, Mr. Editor, I appeal to you, and ask, whether the report of the St. George's Society's ploughing match, be not "the strongest recommendation that the Centre-draught plough has ever yet received?"

Dear Sir, yours,
With perfect esteem and respect,
James Pedder.

Philadelphia, Feb. 14th, 1844.

For the Farmers' Cabinet.

Worn-out Lands.

In the American Farmer of December 27th, appeared an extract from a communication by John Jones, of Wheatland, to the Farmers' Cabinet, in which he makes allusion to the astonishing effects brought about in the renovation of worn-out lands in Delaware, by Dr. Noble, of Philadelphia. On land which cost but $15 per acre, and produced but five bushels of wheat three years ago, by the application of eight loads of manure, costing—freight included—less than $1 50 per load; the Doctor has raised forty-seven bushels of wheat from *one* acre, and from the remainder rather less, the average being an enormous increase over the produce of former years. The editor of the A. Farmer expresses an "intense desire" to learn the secret by which the Doctor has been enabled, at the small expense of less than $12 dollars per acre, to effect such astonishing results.

We would inform him, there is no secret whatever in the method pursued, but such as any farmer might discover for himself, if he would but take the trouble to read some

of the numerous works upon the application of Chemistry to Agriculture, lately published. Knowing by chemical analysis or examination, the composition of the grain and straw of wheat, and that of the soil, it was an easy matter to apply those materials which were needed, in order to produce a healthy and vigorous growth. He prescribed for his wheat and soil as he would for a patient, and with equal success; health and strength have been restored to the suffering subject.

Now, as to the sources of the manure which he has made use of, we will say a word; it is in the power of every farmer, near large cities, to procure the materials which are needed to enrich the soil.

The Doctor formed a compost obtained from various sources, consisting of the refuse of tanners', soap boiling establishments, &c., in short, of such animal and vegetable substances as contain soluble salts, or which can be made subservient to the growth of plants. In the selection of these substances he was guided by their composition as made known by chemical analysis. "Give," says the rational agriculturist, "to one plant such substances as are necessary for its developement, but spare those which are not requisite, for the production of *other* plants which require them."

"An empirical," or quack system "of agriculture, has administered the same kind of manures to all plants, or where a selection has been made, it has not been based upon a knowledge of their peculiar composition." The phosphate of soda or lime, the silicate of potash, and sulphate of ammonia, or other salts containing these in other combinations, are necessary for the production of wheat; these have been supplied by the Doctor, and why should we be astonished at the results which have followed their application? He has adopted the *scientific* method of manuring, and if his knowledge of the composition of the soil and wants of the crop was exact, and his conclusions correctly drawn, he could not err in the application of his manures. His is *indeed* a triumph of science over the old fashioned, uncertain, and empirical mode of farming; here is an example worthy the attention of every farmer, and especially should it be considered by those whom prejudice has so blinded that they can not perceive the vast benefits arising from the judicious application of scientific knowledge to agriculture. It is indeed "creditable to the Doctor as a scientific farmer;" we hail him as a benefactor, and desire that he may persevere in that path of usefulness in which he has found both pleasure and profit.

J. S. L.

Philadelphia, Second month 6th, 1844.

Wool and Sheep Husbandry.

A paper read before the Practical Farmer's Club, of New Castle county, by one of its members, at the regular monthly meeting, February 1st, 1844.

The Hon. Francis Granger, in his remarks before the Agricultural Society of New York, at Rochester, last fall, said that Abner Barlow, the man who sowed the first wheat west of the Cayuga Lake, had made one of their party in coming up in the cars to Rochester that morning, and that Abner Barlow was now a hale, hearty man, enjoying a green old age, and you all know, added Mr. Granger, "how long it is since western New York has had the reputation of being the great wheat district of the country." Other Abner Barlows—other agricultural pioneers might be pointed out, probably now in being, who sowed the first wheat in Ohio, in Indiana, in Illinois, and Michigan, all more recently known as great wheat districts of the country. These are now likewise great corn growing States, as are also others of the Western States. Kentucky raises about 49,000,000 bushels of corn, Tennessee 55,000,000 bushels, and this corn has very recently begun to find its way by the route of New Orleans to Boston, our corn market.

We are forcibly reminded by such facts of the changes that have taken place, and are constantly and rapidly taking place in our agriculture, not only as to the extent to which it is prosecuted, but particularly as to the scene of operations. These matters require to be watched, and somewhat pondered, by us farmers still cultivating the ancient domain of the "old thirteen," and it may be they will suggest from time to time, modifications, or some corresponding changes on our part, in our mode of culture.

Other equally striking changes have been, and are being made by the manufacturing interest. We now manufacture annually, to the amount of $350,000,000, and give employment to 455,668 persons, who are connected with and supported by this interest.

The following is the estimate of the woollen business in 1839. It has probably increased fifty per cent. since that time.

Number sf fulling mills,	2,563
Woollen manufactories,	1,420
Value of manufactured gopds,	$20,696,998
Number of persons employed,	21,342
Capital invested,	$15,765,134

It appears from the reports of the Secretary of the treasury, that for the eight years preceding 1843, there were imported into the country on an average, annually, upwards of 9,000,000 pounds of wool. In 1841, it

amounted to 12,391,035 lbs., and in 1842, to 10,910,382 lbs. The Hon. William Slade, late a member of Congress, from Vermont, has ascertained that for the first half of the fiscal year of 1843, during which time the late tariff has been in operation, it amounted to only 1,037,530 lbs., being a falling off on the average imports of the last eight years, of 77 per cent., and as contrasted with 1841, 1842, of more than 82 per cent. Mr. Slade does not attribute this reduction solely to the operation of the tariff, though that was mainly instrumental—particularly the *coarse* wool provision. The tariff of 1832, admitted wool of the value of eight cents and under, free of duty. It is curious that nearly all the wool imported was of this description. Taking the period above alluded to, of eight years—from 1835 to 1842, and about 71,000,000 out of the 75,000,000 lbs. imported, was the minimum priced wool, though by no means always *coarse*. The condition and depressed state of the foreign market, the bad manner in which the wool was prepared and put up, reduced the price whence imported, to eight cents, and then it came free of duty, and this wool it was that came in competition with our own, and kept it down. Under the late tariff, wool must now at the place whence imported, be of the value of seven cents or under, and also be *coarse*, before it can come in under the small duty of five per cent.—none now comes in free—but if the wool is not coarse, though below the value of seven cents, it has to pay a duty of three cents a pound, and thirty per cent., advalorem, making a duty of some five or six cents a pound on all such wool.

There is another very important point in reference to this foreign wool, to be borne in mind. It is said to lose as high as some *seventy-five per cent. in cleansing*, as opposed to some thirty-three per cent. average loss on American wool. Thus, suppose one dollar buys, at 12½ cents per lb. 8 lbs. foreign wool, which including freight, insurance, commissions and profits, we will suppose to be its cost to the manufacturer—that one dollar buys, at 33 cents a lb. 3 lbs. American coarse wool; when cleansed ready for carding, there will be an equal quantity, 2 lbs. of each—or for the wool clear of the dirt, the cost is 50 cents per lb. in either case. If this is so, 33 cents, it would seem, is likely to be the minimum price of our coarse wool, unless reduced by home competition. Judging from the great falling off in the importations immediately after the late tariff went into operation, and as the small duty of five per cent. on the minimum priced wool is unequal to accout for it, it is fair to suppose that this coarse wool provision, has shut out millions of pounds that otherwise would have been brought into competition with our own common wool. The farmers and wool growers are exceedingly interested that this provision of the tariff law should be thoroughly, honestly, and efficiently executed. They have a right to expect good faith and fidelity on the part of the manufacturers, independent of the action of the custom house. They have stood shoulder to shoulder with them. They have sought the establishment and success of the manufacturing interest, and their votes and influence have mainly insured it. They have in doing so, made few stipulations for themselves, but in this small boon that has been extended to them, they trust the word of promise will be kept.

A respectable eastern paper, the Boston Courier, of a late date, estimates there is in operation from 25 to 50 per cent. more machinery than there was at the beginning of 1843. It is supposed there was on hand at the beginning of 1843, at least half a year's clip of old wool, and the clip of '43 was unusually large. It is also stated that the quantity of pulled wool had accumulated at the beginning of the last year to a great and unusual extent, owing to the falling off in the manufacture of flannels and other fabrics, in which it is principally used. The stock of every description is now said to be nearly consumed, except a moderate but fair supply, mostly in the hands of the manufacturers, and within the last sixty days wool has advanced considerably. It is now worth from 33 to 55 cents. It would thus appear that while the quantity of American wool likely to be in market during 1844, must be nearly one half less than it was in '43, there is machinery in operation to consume from 25 to 50 per cent. more than was consumed during that year, or sufficient to consume almost twice the the clip of 1844. There will hence be a demand for wool, and this demand will go on increasing from year to year, and the question is who shall supply it—whether our own farmers and wool growers, our own lands and sheep, or whether failing to supply our own consumption, with all our territory and advantages of soil and climate, we must import our wool from foreign countries. That this demand and consumption are likely to continue to increase, appears from a note appended to a very able address lately delivered before the American Institute, by the Hon. James Talmadge—being an account of British woollen manufactures, exported in 1841, made to Parliament—that Great Britain exported in that year, of woollens to the amount of £5,748,673.

That of this she sent to the United States £1,521,980, or over $7,000,000 worth, *being over one quarter in amount of the whole British exports of woollens.* The amount she sent to the United States in 1842, as appears by the late report of the Secretary of treasury, is $5,457,721. There is no doubt it has been much less in 1843, during the operation of the tariff. Who can doubt it will every year diminish—that the same thing will take place in reference to this branch of manufacture as has in reference to the cotton, hardware, &c., and that we shall supply ourselves.

The aggregate amount imported from all countries, of woollen manufacture in 1842, was $7,437,543. It is the largest item of our imports at this time, except silks, which exceed $9,000,000. It leaves our woollen manufacturers a fine margin, and they will diminish the amount of these imports at a rapid rate. Those engaged in the importing of foreign cloths, see that this must be the result. A member of a large Philadelphia firm, exclusively in this business, remarked the other day, that they would be compelled to turn their attention to domestic goods, that as to cassimeres, they were already being driven entirely from the market.

It is estimated it would take 2,000,000 acres of land to keep the sheep we require. We have now about 20,000,000 sheep; and the clip of 1840, is put down in the Farmer's Encyclopædia, at 35,802,114 lbs. The sheep of Great Britain, were estimated in 1834, at 32,000,000. She imported in 1841, for her own consumption beyond her own production of wool, 52,862,029 lbs., almost twice as much as the quantity grown in the United States. We require for our own manufacture and consumption, or shall by the time we can grow the sheep, at least twice the quantity of wool we at present grow, and our flocks may safely be doubled.

The western States are now growing a good deal of wool. Ohio as a wool growing State, comes next after new York and Vermont, and is about on a par with the latter. The relative advantages of the West, as compared with the high mountainous districts of the East, has been somewhat discussed of late. But why are not the soil and climate of Delaware, Maryland, and Virginia, as well or better calculated for sheep-husbandry, than either the western or the eastern States! We have more land cleared than we have capital or population to work in tillage; this is particularly true of the lower counties of our State. To work a whole country as a tillage, in growing grain, grazing little and mowing less, requires, to do so to advantage, the command of a vast deal of labour and capital.

The sheep we have, in every part of our State look well, and seem to do well, though they are not kept, with few exceptions, in large quantities. We certainly have a great advantage over the eastern States, in the mildness of our climate and the very little snow we have. Sheep will winter with us without any hay or fodder, and do well, unless it should be necessary to feed them for a few days during a slight fall of snow, which seldom lasts over a week. I have now on my farm a flock of 100, that have scarcely eaten as many pounds of hay or fodder thus far this winter, and they are in good condition. I visited Dr. Jarvis' farm near Claremont, in New Hampshire, some time back. It was in the month of August, and the Doctor had some dozen men engaged in mowing, and informed me that he mowed over something like 200 acres, to get hay for his sheep. His flock was large, consisting of about 2000. It is probably fair to estimate that it costs nearly or quite one dollar a head, to winter sheep in any of the New England States or New York. In reference to the West, we certainly have a very great advantage over it, in having a good and ready market for our lambs; we can readily selll them to the Philadelphia butchers when some four or five months old, for two to three dollars a piece. Then again, we can feed off any we may wish to part with, in the fall or winter, and get them to market almost without expense, indeed the butchers will come to our farms for them. So that we may grow sheep with us, both for the wool and for the carcass, and the latter is often the paramount consideration with the English shepherd. The West has no advantage over the lower counties in our State, on the score of the cheapness of their lands. An emigrant cannot locate himself on a Western prairie, build his house or log-cabin, and fence or enclose his land, including the expense of removing his family, as cheap as a farm of like dimensions can be bought in Kent or Sussex, and a naturally good soil too, with decent buildings and fences, and well adapted to sheep-husbandry. This may seem strange, but I believe it is true. Such farms can often be had for six to ten dollars per acre, including improvements, and in a good neighbourhood, near a free-school and a church, and with as good roads as a wheel ever passed over. When land can be had at these prices, and such as from its position and quality is adapted to the business, it might do to follow sheep-husbandry exclu-

sively. In our county, however, where lands are much higher, a mixed husbandry, grain, grazing, and sheep, would probably do better. Small flocks, from 10 to 20, 50 and 100, are very common with the New England farmers. It affords lamb or mutton for the table, wool for domestic purposes, as well as sufficient to sell or exchange for the cloth required by the family, and the trouble and expense of keeping a small flock, inconsiderable and hardly felt. Another circumstance results from this common practice of keeping sheep; the dogs get used to them, become as it were, domesticated with them, and sheep for this reason are seldom disturbed there by dogs. The first clip at the present price of wool, will nearly return the capital invested in the sheep. And the annual clip from a flock of 500, including the sale of lambs, would afford in these hard times, a neat little income, and with this advantage, that there would be little or nothing to be paid out of it for labour, to pay which, nearly half the receipts of our grain farms have to go, and with this still further advantage, that our sheep farms would every year be growing better instead of worse, and that without any outlay for lime or manure. We might almost afford to sheep our old fields with this exclusive object, and without regard to further profits. It is not best, however, for the farmer to be too sanguine of realizing great profits. The pursuit of agriculture is not likely with us, to result in great profits or the sudden accumulation of fortunes; it is better that it should not—it is our privilege that it does not. The farmer is content to pursue the even tenor of his way, avoiding alike the extremes of poverty or riches, engaging in no mere speculative pursuits, but at the same time exercising an intelligent and discriminating judgment in the objects he selects for production—and with this view he should especially seek to comprehend the bearing of the legislation of the country upon his own immediate interests, and he will thus be able to direct his efforts in a manner most likely to ensure a fair reward for his labour.—*Delaware Journal.*

For the Farmers' Cabinet.

The Bene Plant.

Mr. Editor,—In looking over some of the early numbers of the "American Farmer," the other day, I found in one for the 15th December, 1820, an interesting article respecting the "Bene plant," which was at that period cultivated in Georgia. I never before heard of this plant, but it appears to be a valuable one, on account of the oil which its seeds contain. I presume but few of your readers are in possession of the early numbers of the work I allude to, and for their information I will briefly notice the most material part respecting this plant. The seed, it appears, was first brought to the south by African negroes, who cultivated it as a valuable and important ingredient in their pottages, being first moderately roasted. The pod which contains the seed, is shaped like, and much about the size, of a tobacco pod. It is stated that two gallons and upwards of cold drawn oil, were obtained from a bushel of the seed, and that it is equal to, and used for the same purposes, as the best olive oil, and will keep for several years without turning rancid. The usual mode of planting the seed is in hills, three feet apart, two or three plants in a hill, and the ground to be worked much in the same way as for corn.

I have no right to doubt the correctness of the article from which I have given an abstract, and as the subject is worthy of inquiry, I shall be glad to learn through the columns of your valuable work, if the Bene plant be still cultivated in any of the Southern or other States, and if so, where I can procure some of the seed, for if all be true that is said respecting the article, it would prove a valuable one for cultivation.

J. T.

Hamilton township, Hunterdon co., N. J., Jan. 12th, 1844.

The Bene plant—*Sesamum Orientale*, is an annual plant, and is we believe, cultivated to some extent in the Southern States. It delights in the tobacco and cotton region, where the seed readily ripens. In this vicinity it is frequently grown in our gardens, but the season is too short for the seed to mature, unless the plant is urged in hot-beds. A decoction is made of the leaf, and is valued as a remedy in dysenteric affections.

The plant, which is sometimes called *vanglo*, or oil plant, is said to have been introduced into Jamaica by the Jews, who are fond of the seed, and frequently make them into cakes. In Japan and China, where they have no butter, they use the oil for frying fish, &c. The seed is rich in oil, and may readily be procured, we apprehend, at our seed stores.—Ed.

Speaking of farming in Belgium, a correspondent of the N. Y. Tribune says: "It is one vast garden; every inch of ground is compelled to produce its utmost. The superficial farmers of America, who imperfectly turn up the soil of a thousand acres, might take a profitable lesson from the care and skill which here enable every acre to support more than its man."

For the Farmers' Cabinet.

Food for Cattle.

At this time, when the correct principles of farming and feeding, as ascertained by chemical analysis, are a subject of general inquiry, I have thought the following article on "Food for Cattle," would be interesting to the readers of the Cabinet. It appears to me that a far greater value has been attached to some esculents containing a very large portion of water, such as turnips, beets, carrots, potatoes, &c., than they deserve; whilst others, in which the proportions of organic matter are very great, such as peas, beans, oats, barley, wheat-bran, &c., have been too much neglected. It is quite contrary to the received opinion, that 100 lbs. of the skin of wheat,—bran—is as valuable for cattle food, as 100 lbs. of almost any article that can be given to them. But this may account for the observation that we have often heard made, that "miller's horses and hogs are always fat," as they are generally fed liberally on wheat-offal. J. L.

Milverton, First month 12th, 1844.

Extracted from Dr. Playfair's Lecture, delivered to the members of the Royal Agricultural Society, in December last.

The food of cattle is of two kinds, azotized and unazotized, with or without nitrogen. The following table gives the analysis of various kinds of food of cattle in their fresh state:

		Water.	Organic matters.	Ashes.
100 lbs.	Peas,	16	80½	3½
"	Beans,	14	82½	3½
"	Lentils,	16	81	3
"	Oats,	18	79	3
"	Oat-meal,	9	89	2
"	Barley-meal,	15½	82½	2
"	Hay,	16	76½	7½
"	Wheat-straw,	18	70	3
"	Turnips,	89	10	1
"	Swedes,	85	14	1
"	Mangold-wurtzel	89	10	1
"	White carrot,	87	12	1
"	Potatoes,	72	27	1
"	Red beet,	89	10	1
"	Linseed-cake,	17	75½	7½
"	Bran,	14½	80½	5

A glance at this table would enable a person to estimate the value of the articles as diet. Thus every 100 tons of turnips contained 90 tons of water. But the value of inorganic and organic matters which these foods contained, differed. Thus Mr. Rham states, that 100 lbs. of hay were equal to 339 lbs. of mangold-wurtzel. It would be seen that that quantity of hay contained 76 lbs. of organic matter, whilst the mangold wurtzel contained only 34 lbs.

One result on feeding animals on foods containing much water is, that the water abstracts from the animal a large quantity of heat, for the purpose of bringing it up to the temperature of the body, and in this way a loss of material took place. The mode proposed by Sir Humphrey Davy, of ascertaining the nutritive properties of plants, by mechanically separating the gluten, is unsusceptible of accuracy. The more accurate way is, to ascertain the quantity of nitrogen, which being multiplied by 6.2, will give the quantity of albumen contained in any given specimen of food.

The following table shows the equivalent value of several kinds of food, with reference to the formation of muscle and fat, the albumen indicating the muscle-forming principle:

		Albumen.	Unazotized matter.
100 lbs.	Flesh,	25	0
"	Blood,	20	0
"	Peas,	22	51½
"	Beans,	31	52
"	Lentils,	33	48
"	Potatoes,	2	24½
"	Oats,	10½	68
"	Barley-meal,	14	68
"	Hay,	8	68½
"	Turnips,	1	9
"	Carrots,	2	10
"	Red beet,	1½	8½

The analyses in this table, are partly the result of Dr. Playfair's, and Boussingault's analyses. The albumen series indicates the flesh-forming principles, and the unazotized series indicates the fat-forming principles. By comparing this table with the former, it will be at once seen which foods contain not only the greatest quantity of organic matter, but what proportion of this organic matter is nutritive, and which is fattening, or that which furnishes combustible material. In cold weather, those foods should be given which contain the larger proportion of unazotized matters, in order to sustain the heat of the body. Thus it will be seen, that potatoes are good for fattening, but bad for fleshening. Linseed cake contains a great deal of fattening matter, and but little nutritive matter; hence barley-meal, which contains a good deal of albumen, may be advantageously mixed with it.

Dumas, a French chemist, states that the principles of fat exist in vegetables, as in hay and maize; and that, like albumen, it is deposited in the tissues unchanged. But Leibig regards fat as transformed sugar, starch, gum, &c., which has undergone a change in the process of digestion. This is why linseed cake is fattening; all the oil is squeezed out of the seed, but the seed-coat—which contains a great deal of gum and the starch of the seed—is left, and these are fattening principles.

The oxygen, introduced by respiration into the lungs, is destined for the destruction of carbonaceous matter; but there is a provision made for taking it into the stomach with the food, and this is done by the saliva. The saliva is always full of bubbles, which are air bubbles, and carry the oxygen of the atmosphere into the stomach with the food. The object of rumination in animals, is the more perfect mixing of the food with the oxygen of the air. This is why chaff should not be cut so short for ruminating, as for non-ruminating animals, as the shorter the chaff is, the less it is ruminated, and the less oxygen it gets.—*Mark Lane Express.*

For the Farmers' Cabinet.

Lime.

Mr. Editor,—I was much pleased with the greater part of the article in the January No. of your paper, by Willis Gaylord, "On the Preparation and Use of Manures;" but when he says, a vast deal of needless controversy has been carried on, respecting the value of lime as a manure, or the quantity which should be used per acre, I must respectfully differ from him. He says, "by some it has been extolled, as the very highest on the list of effective manures, while others have described it as of no use whatever, and both have appealed to experiments, as establishing their positions:" and then adds: "a knowledge of the nature of the action of lime, would have prevented such seeming contradictions:" I grant this would be the case if we had such knowledge, but is Mr. Gaylord sure we have it?

Whenever he can point to two agricultural chemists, that agree in opinion on the action of lime or plaster, it will be time enough to quit experiment for theory. Let it not be thought I am foolish enough to suppose, that no benefit to agriculture may be derived from chemistry. I believe the day may come, when it will render farming a certain science. At present, agricultural chemistry is but in its infancy, and when it attempts to direct practical farmers, it is but the blind leading those who see dimly. We must at present rely on experiments, having due regard to the soils, climate and country, in which they are made. Mr. Gaylord's theory will not do in this country, for if we put any faith in human testimony, lime will not benefit some of our best land, full of vegetable matter, in Chester county, while it is of the greatest benefit to the worn-out lands of Delaware and Maryland. Now how does this agree with the following from Mr. Gaylord? "As long as there is a store of organic matter in the soil, lime, if not in excess, is a valuable manure, but when this is exhausted, the application of lime only increases the sterility; on soils already poor, a small portion speedily exhausts the remaining powers of the soil." When Mr. Gaylord treats of plaster, he is much more reasonable; for after giving the theory of Davy, Liebig, Chaptal, and Dana, he refers to the experiments of farmers to prove that Davy and Liebig know nothing about it; Liebig's theory, upon which so much stress was laid in some former articles in the Cabinet, is shown to be the most absurd of any of them. I agree with Mr. Gaylord, when he says, "Mr. Dana appears to approach as near a solution as any of them," which is not saying much for him. Every one will say, on reading the article, that but little is known on the subject. When Mr. Gaylord quits theory and gives us facts, they are valuable, and will be appreciated by us all. He says, "plaster does not act as usefully in the vicinity of the sea as in the interior:" this is no doubt true, and I think he might, when treating on lime, have said just the reverse, that lime does not act as usefully in the interior, as in the vicinity of the sea. From all I can learn on this subject, I am inclined to believe, that where plaster acts, lime does not, and *vice versa*. On some of my land on which I can see no improvement from the use of lime, plaster produces the most astonishing effects. A friend tells me, that in Salem county, N. J., they do not find plaster of any use, but think they receive great benefit from lime. I would be much obliged to Mr. Cazier, or any of the gentlemen whose experiments he gives, if they would let us know through the Cabinet, the result of any experiments they may have tried with plaster; in this way farmers may greatly benefit each other, and if we establish this as fact, we need not fear but that chemists will soon write out a beautiful theory, explaining the why and wherefore. Mr. Gaylord is, I think, mistaken, when he says, plaster is valuable as a dressing for wheat;—it has been repeatedly tried in this vicinity, without any good effect, but if clover seed had been previously sown, the application of plaster was injurious to the wheat, causing too much growth in the clover before the wheat had matured. If chemists, as is proved by the foregoing, know nothing about the action of plaster, excepting what they get from practical farmers, is it likely they know more of the nature of the action of lime? There is one well known effect of lime in this part of Chester county, which I do not think their present theories will account for: that is,

its preventing the ripening of wheat and other grain, frequently causing wheat to mildew.

One of my neighbours, Mr. Penrose, limed a field for corn, at the rate of 40 bushels per acre; having 80 bushels left, he went over two acres again, making 80 bushels per acre; after corn and oats, he sowed wheat, and at harvest the two acres were mildewed, and scarcely worth cutting; the remainder was plump heavy grain. And this effect is generally observed where lime heaps have laid; both in oats and wheat, it is shorter and greener at harvest. We have in the same number of your Cabinet, another long extract from Johnston's Lectures on the same subject, all English, of course, which has repeatedly been shown not to apply to this country, at least not to the upper part of Chester county. Plaster, we are told by English writers, does little or no good in England. Might we not, with the same plausibility, recommend gypsum to them, that they recommend lime to us? One of your correspondents tells us, that the marl from New Jersey, is of no advantage on this side the Delaware. If crossing a river make such a difference, what may not crossing the Atlantic ocean do? The lime may be very different in quality: the only place in which he mentions the kind of lime, shows that it was "shells," which any practical man will tell you, may be applied to land in this country, in almost unlimited quantity, without doing *much harm*.*

What I have been contending against from the beginning, is the universal application of their theories. Your Darby correspondent, notwithstanding all the testimony to the contrary, says, "lime is universally used." What he understands by universally, I cannot say, but if he limits it to "the universal Yankee nation," he will have to leave out the New England States, for one of your correspondents says lime does no good there, and I am afraid the Great West must follow, for another correspondent that experimented with lime, tells us that it can only be applied there beneficially, with the *trowel*. If he included the whole globe, he must in addition leave the 300,000,000 of China, out of his universe; for if we believe the reports of travellers, they do not so much as mix lime with their poudrette,† and yet are said to understand the nature and use of manures better than any people on the globe. All of which is very unfortunate for your Darby correspondent, as part of China is our antipode, and perhaps approaches nearer our climate, in some particulars, than any other part of the earth.

But after all the professor says about lime, his conscience would not let him close, without adding the following: "Organic matter, in the form of farm-yard manure, of bone, or rape-dust, of green crops ploughed in, or of peat and other composts, must be *abundantly and systematically added*, if at the end of twenty or forty years, the land in which the full supply of lime is kept up, is to retain its original fertility, *otherwise present fertility and gain, will be followed by future barrenness and loss.*"

I think I have shown in former communications, that the organic matter enumerated by the professor, with the addition of plaster, leaving out bone and rape-dust, is sufficient without lime, to keep up the fertility in Chester county, for more than one hundred years. And in order to give this argument its proper weight with practical men, I will so far presume on Mr. Townsend's good nature, as to give a short extract from a letter I received from him, in answer to a note, asking information on this subject. Mr. Townsend says, "The farm on which I reside, I have been informed by my father, has never had any lime applied to the soil prior to the period you have alluded to, except in one instance, when he was induced for the sake of experiment, many years since, to lime about half a field, from which he said that he never was able to discern any beneficial effects. He accordingly abandoned the idea of liming altogether, and relied exclusively upon gypsum as a stimulant, and the barn-yard for manure. The consequence was an exuberance of produce, of both grass and grain, without impoverishing the soil in the least, although in the habit of selling *annually*, a considerable quantity of hay, and frequently straw. This course he pursued nearly fifty years." I will only add, that if Mr. Townsend's farm had been heavily limed, it would have been pointed to, as an unanswerable argument in favour of lime, and we should have been triumphantly asked, what but the lime, could compensate for the large quantities of hay and straw sold? J. W. Van Leer.

* I wish it to be distinctly understood, that all my experience was with magnesian lime: pure, or nearly pure carbonate, such as the great Valley marble, I have never tried.

† Lime should never be used in the preparation of Poudrette. The Chinese understand their business. —Ed.

CHARITY.

Believe not each accusing tongue,
As most weak persons do;
But still believe that story wrong,
Which *ought not* to be true.

From the New England Farmer.

Manuring Root Crops with their tops.

Mr. Breck,—In a former communication to your paper, I promised to give the result of an experiment which I was induced to make from the suggestion or experience of one of your correspondents. He said that "if the tops of several kinds of root crops were left on the ground where they grew, that the next crop of the same kind would be as good as the preceding, and so on from year to year, without a resort to rotation."

After harvesting a piece of carrots in 1842, the tops were thrown into heaps and covered with dirt. In the spring, the heaps were spread evenly over the ground and ploughed in with the manure for another crop of carrots. The ground, each year, was first planted with onions, and about six weeks after, planted again with carrots. In 1842, the onion crop was almost a failure, from planting old seed, which gave the carrots a better chance. The present year, the onions did well, and yielded at the rate of 296 bushels an acre, more than the former crop, while the carrots fell short 156 bushels an acre. The last carrots, either by some defect in the seed, or planting, did not come up well; spaces of several feet in every row were missing. I also suffered more vines to grow among them this year than last; and then a very severe drought last summer had a tendency to lessen the crop. Considering all the disadvantages, the yield was good; the roots were as large and smoother than the former crop, which, I have no doubt, with the same chance, would have been heavier. So that, on the whole, the experiment has strengthened my faith in the efficacy of the application of the tops to the succeeding crop, and convinced me that they restore to the soil a portion of that specific food which the former crop had exhausted.

A statement of the produce of the same piece of ground for 1842, was inserted last winter in the New England Farmer, which was said to be a good crop, but as it has given a better yield this year, I will briefly state the expense of cultivation, together with the quantity and value of the crop.

The spot of land is a little island on a marsh, that contains one-fourth part of an acre. Soil rather sandy, very free and easy to work, and but little inclined to weeds. Fifteen single horse-loads of hog-pen and barn-yard manure were ploughed in, and twenty bushels of ashes worked in with a rake. On the 14th of April, nine ounces of onion seed were planted in rows two feet apart. After hoeing twice, eight ounces of carrot seed were planted the 1st day of June, between the rows of onions, and the whole hoed twice more. Sold ninety-one bushels of onions by measure, and reserved two barrels. The carrots were sold by weight, 104½ bushels, and put 42½ bushels, by measure, in my cellar. I also raised on the same spot, 1870 lbs. winter squashes, and 1260 lbs. citron melons. Sold 1085 lbs. of squashes at one cent a pound, and a part of the citrons at the same price. Kept no particular account of the citrons—they were not saleable: gave away more than I sold. Paid fifty cents a load for the manure, and twelve and a half cents a bushel for the ashes.

The proceeds of the crop and expense of cultivation stand thus:

Produce.

96 bushels of onions, at 40 cents.	$38 40	
147 do. carrots, at 17 "	24 99	
3,130 lbs. squashes and citrons, at ¼ ct.	15 65	
Amount of crop,		$79 04

Expense.

Manure, including ashes,	$10 00	
Onion and carrot seed,	94	
19½ days labour, at 75 cts.	14 62	
4½ do. do. horse, at 75 cts.	3 38	
Cost of cultivation,		$28 94
Net profits of ¼ acre,		$50 10

The crop of 1842, was 20 bushels of onions, 186 bushels of carrots, and about 1000 lbs. of squashes, not weighed.

The most correct way of trying the experiment with the root tops, would be to confine the ground to one kind of crop, but when I was reminded of it by your correspondent, my different kinds were then growing; and therefore concluded that the most correct trial would be to cultivate the piece in the same way again.

Thus I have endeavoured, with some degree of accuracy, to give the result of the experiment, and will leave it for the reader to judge how much the tops benefit the succeeding crop. I am fully convinced that if the last crop of carrots had come up as well as the first, had not been injured by the drought, nor overrun with vines, that it would have been equally as good, if not better, notwithstanding I get about five times as many onions. I have left the tops on the ground again for another crop of carrots, and should a further trial show a different result, with your indulgence, the public shall have the benefit. C.

Wickford, R. I., Dec. 1843.

He that would be rich with the least labour, must have few wants.

For the Farmers' Cabinet.

Scotch Farming in the Lothians.

Mr. Editor,—I have the pleasure to send you a pamphlet on "Scotch Farming in the Lothians, by Robert Hyde Greg,"—a practical farmer on a large scale, in Hertford, England,—which was imported for me, by Mr. John Pennington, bookseller of this city, and is, I suppose, the only copy in the United States. I recommend you to insert it entire in your next number of the Cabinet, that the American farmer may be possessed of its invaluable contents without delay. Numerous suggestions offer themselves to my mind in reading this pamphlet, but I forbear to state them, as I entertain no doubt they will also occur to the readers of the Cabinet.

I also send you another pamphlet on "Agriculture and the Corn-laws" of England, a prize-essay, which may form a part of the April number of the Cabinet. This pamphlet will also afford abundant material for reflection with all American readers, and ought to be well considered by them. A powerful opposition, the extent of which is unexampled in Britain, has been formed to the corn-laws, and £60,000 already collected, to forward its views. The citizens of the United States, often read in the newspapers about these laws, but few of them are masters of the whole subject. Mr. Greg's pamphlet will inform them fully on it, and enable them to draw a comparison between their happy condition, and that of the labouring and farming classes of her Britannic Majesty's subjects. Mr. Greg demonstrates clearly, that the corn-laws, although made to promote the interests of the farmer, are injurious to them.

With best wishes, I remain, &c.,

James Mease.

February 13th, 1844.

Letter addressed to the Editor of the Manchester Guardian, by Robert Hyde Greg.

The following Letter, containing the substance of my observations on the system of Farming in the Lothians, was inserted in the "Manchester Guardian," in the hope of awakening attention to the backward state of Agriculture in many parts of England, more especially, in the neighbouring counties of Lancashire and Cheshire.

It has met with a much wider circulation than I could possibly have anticipated, and has gone the round of a considerable portion of the London and Provincial press. I have, in consequence, been called upon for so many explanations, and for a reply to so many inquiries, that I thought a publication of it, in its present form, might not be unacceptable, accompanied by such notes as might seem to be necessary, or desirable.

It can hardly, I think, be doubted that the farmers of England are about to enter upon a serious crisis.

They must prepare themselves for lower prices of agricultural produce than have hitherto ruled in this country, at least, for some years.

The prohibition of foreign cattle and meat has already been withdrawn, and almost every country is now feeling its way into our markets, with various results, but, on the whole, with success.

A growing conviction prevails, that the Corn Laws, even in their amended shape, cannot, much longer be maintained. If repealed, prices will rule low from the increased competition of foreign produce. If not repealed, prices may still rule low from *inability on the part of the manufacturing and other classes to purchase.*

It appears to me that the embarrassments, arising from permanently reduced prices of agricultural produce, can be averted only, by a union of improved cultivation and more economical management, on the part of the tenant, with the granting longer leases by the landlord, on rents regulated, in part at least, by the current value of the produce of the farm.

The prosperous condition both of landlords and tenants, in Scotland, even under the adverse circumstances of the years 1833 to 1836, bears decisive testimony to the effects of an improved cultivation and of corn rents; and, if the attention of any one has been awakened to these effects by perusing my "Letter on Farming in the Lothians," I shall feel amply repaid for the little trouble which has attended its publication.

Robert Hyde Greg.

Norcliffe, Sept. 9th, 182.

Dear Sir,—Now that parliamentary warfare is over, and the din of arms and of special constables* is subsiding, it may, perhaps, not be uninteresting to your readers, more especially the agricultural portion of them, to peruse the notes I have made during my late visit to the Lothians, a visit which I made solely for farming purposes.

The Lothians comprise, I believe, the counties of Edinburgh, Haddington, and Linlithgow, and have latterly become celebrated for the superior system of cultivation carried on, the flourishing condition of the

* The disturbances in the manufacturing districts.

farmers, and the high rate at which the land is leased.

Considering the fate of the corn-laws to be sealed, and all unequal protection to the landed interest about to be withdrawn, I was anxious, both as a landlord and a farmer, to prepare for the state of things which such a change might introduce; more particularly as a farmer, to prepare myself, by increased skill and economy in the management of my farm, for the keener competition and lower prices which the free introduction of foreign agricultural produce must establish.

I may, perhaps, just mention, that my farm is in the county of Hertford, and consists of 500 acres. It is conducted on the best system current twenty or twenty-five years ago, superior to any thing in these parts,* and my bailiff was brought up in the Lothians; but aware that we might have been stationary, whilst elsewhere, as in Scotland, a rapid progress had been going on, I determined to ascertain the actual state of farming where it had made the greatest advance, and, with this view, desired him to give me the meeting at Edinburgh, on the first of July last. Owing to the kindness of a friend, who understood farming well himself, and who had an extensive personal acquaintance with the farmers, I was enabled to visit a number of farms of various descriptions, and to communicate with the farmers themselves in freedom and confidence.

It would be uninteresting to the general reader, were I even competent to do it, which I am not, to enter minutely into details: those capable of understanding them should visit the country; and, whether they do so on a tour of profit, or amusement, they will be amply repaid.

The general conviction which remains upon my mind is this, that with a system equal to that of the Lothians, established throughout England, landlords might receive double rents,† farmers be rich and prosperous, and the country be rendered, for two generations, independent of foreign supplies, notwithstanding an abolition of all protective duties. I am confident the agricultural produce of England, Wales, and the west of Scotland, might be doubled;‡ and that of

* Lancashire and Cheshire.

† It has been objected to the notion that English landlords could obtain double rents were the Lothian farming to become general, that the Scotch, at present, benefit by a union of their own skill, and the high price of produce incident to the unskilful cultivation of England, and that with the low prices which would follow a great increase of production, rents would not increase in equal proportion.

This is true, but unimportant, for the power of feeding a double number of men on the produce of a given estate, will, in the long run, confer upon the owner of that estate an *equivalent* to a double nominal rent.

In like manner it may be objected, that farmers must, ultimately, come down to the ordinary current rate of profits; but farmers, employing with spirit and intelligence a capital of £4000 or £5000, may, at all times, be called *rich*, as a class, compared with the present race of farmers in England.

‡ The possibility of doubling the agricultural produce of England has been doubted by many, and utterly denied by others. My conviction, however, is shared by men more competent to give an opinion on such a subject, than I am. In the "*Compendium of the Evidence given before a Committee of the House of Commons, appointed in* 1836, *to enquire into Agricultural Distress*, by William Hutt, Esq. M. P." (evidence of the most interesting and important nature, rendered accessible to the public generally, through the medium of this Compendium,) we find the curious fact, that at the period of the greatest distress amongst the *English* farmers, (1833 to 1836,) the *Scotch* farmers, universally, represented themselves as thriving, and improvements of every kind as going on at a rapid rate. Since that time, (the year 1836) the same high prices which have removed the complaints of the English farmers, have placed the Scotch in a most flourishing condition.

Mr. Oliphant, M. P. for Perth, a landowner and extensive practical farmer in Perthshire, is asked by the Committee, "Is there a great difference between the cultivation of Scotland and England?—Ans. There is in most parts, there is some very fine farming in Northumberland, but generally speaking I should say that *upon the soil of England the produce might, with very great ease, be doubled.*" "Its productive qualities are not sufficiently drawn out?—Ans. Nothing like it; it astonishes a Scotchman, who comes to England, to see so fine a soil, under so fine a climate, lying in such a state."

And further on, he states, "I think there are many thousand acres of the best land in England, yielding only *one-fourth part of the produce*, which a very small amount of intelligence and industry applied to it, would *quadruple*." And again, "I do not know any land in England, within my own knowledge, as to which I am not satisfied, that if I were to purchase it at market price, and expend capital upon it, it would return more than £5 per cent. upon the prime cost of the land and capital expended."

Mr. Smith of Deanston, also, states of his own farm in Perthshire, 200 acres, "I should say that 15*s*. an acre would have been a fair rent, in its former state; now, it is worth £2." "*Its former state*," being the state of a great part of England at present; and if his land could, by these improvements, be doubled in value, why not *English farms* by similar improvements? It is repeatedly stated, moreover, by the Scotch witnesses in the same evidence, that peaty and heather land, by the same improvements, chiefly through draining and subsoil ploughing, was being brought into cultivation at a rapid pace; the value of such land rising from 5*s*.

Lancashire and Cheshire, be tripled, and this without any material addition to the agricultural population.*

The Lothian farms consist, each, of 200 to 500 Scotch acres, the Scotch acre being one fourth larger than the English statute acre; and I shall limit my remarks to the current acre of the Lothians, not knowing whether it is, or is not, the common measure of Scotland.† Some few farms are rather smaller, chiefly those a few miles from Edinburgh, upon which it is not necessary to keep stock for the purpose of manure; and some few are larger, where stock is fattened for market; but a farm of 300 to 500 acres is, by common consent, the utmost which one farmer is thought capable of managing himself, just as a concern of 500 looms is considered, in this country, enough for the personal superintendence of one man.

The farm buildings are small, compact, and situated near the centre of the farm, and have always a *steam engine*, of six to eight horse power, for threshing and other purposes. The corn is put up in stacks, in a stack-yard, near the thrashing machine; the stacks being of such a size, *as that one may furnish a day's work for the machine.*‡

At the entrance of the farm-yard, is the dwelling of the greeve, or bailiff; for every farmer keeps a bailiff, who superintends every thing on the farm, and is cognizant of every thing that goes in, or out of the farm buildings. A fact which struck me much was, that the greeve received only *one shilling a week* more than the ploughman. The

and in some cases from 5*d.* per acre, to 40*s.* and 45*s.* I may also, I believe, quote the authority of a competent authority, Mr. Ogilvie, for the correctness of my assertion, that the produce of Lancashire and Cheshire might be *tripled.* I, by no means, intend to assert that the produce of every individual farm in England might be doubled, far from it: of some, it might be difficult to increase the produce at all. The great deficiency with our best farming in England is *in economy of management, not weight of produce.* A great portion, however, of the North-west of England and Wales, is undrained grass land, *almost in a state of nature*, divided into very small fields by rambling, uncouth hedges, filled perhaps with timber trees. I have no doubt, by the introduction of furrow draining, putting the land through a proper rotation of crops, and throwing it into good sized farms, *the produce of such land might be tripled.*

Even the fine pastures of Northamptonshire and Leicestershire, which supply Smithfield with the finest beef, if subjected to a proper rotation under the plough, might probably furnish London with the same quantity of fat cattle, as at present, and yet be made to yield a full quota of Corn crops in addition; and, if I am rightly informed, some of the farmers have already intimated to their landlords that they *could do so*, and that they were anxious to make the experiment.

* Few parts of Scotland have improved more than the County of Perth, which exported last year about 100,000 tons of potatoes to the London market. The population, however, seems actually to have *diminished* since the census of 1830. In the arable districts of England, the population is probably ample for an improved, though a more economical system of farming, but, in the grazing counties, a great addition would be required, should the land be broken up, and put through a proper rotation. If the produce of the land could be anything like doubled, whilst the population remained the same, a double portion of the comforts and necessaries of life must fall to the share of each individual; and if the labouring classes did not multiply their numbers too rapidly, this state of prosperity might continue for generations.

The low rate of provisions would, in such a case, render Corn Laws as useless, as those which profess to protect the Cotton Trade, imposing a duty on the importation of that which is never imported.

† I believe this acre is common to all Scotland: if so, they are as much *behind* us in this, as *before* us in other things; for we have no less than four or five acres current in the same county, some of them more than double the measure of the others, thus causing great confusion.

‡ The *Steam Engine*, upon Lothian farms now almost *universal*, is rapidly spreading throughout Scotland, and superseding the use of *horse power* for driving the thrashing machine and other farm work. As the engine appeared to be used only twenty or thirty times a year, I could not clearly understand its advantage over horses. I have, therefore, since my return, written to Scotland for an explanation, the subject being one of considerable importance. The answer will be found in the Appendix. Meantime, I suspended the order I had given for an engine.

A good six-horse, high pressure engine, of the kind in use on the farms in Scotland, costs £110 or £120. It requires about three-quarter cwt. of Newcastle coal to get up the steam, and twenty-four cwt. will thrash out and dress *one hundred quarters of grain.* So, at least, said my informant. I find, however, that the evidence, before quoted, gives a ton of coals (though of an inferior quality to the Newcastle) as the consumption of ten hours, and thirty quarters of wheat, and forty quarters of other grain, as the quantity thrashed and dressed in that time.

Thrashing machines cost, complete, with finishers and dressers, £80 or £90. Excellent ones are made by *Carlow*, of Lennie Port, Costorphine, Edinburgh. They are infinitely superior to the miserable machines creeping into use in the south of England, and turn out wheat ready for the sack, in superior condition, and less damaged than when thrashed with the *flail.* The straw also is less cut than in the rude Suffolk thrashing machine.

It is now about twelve years since mobs went through the south of England, *breaking the few thrashing machines then in use.* It ended in the Magistrates recommending the farmers to lay them aside; which was done. A few *travelling machines* now go sneaking about from farm to farm.

explanation given is equally remarkable, viz., that every man on the farm has knowledge enough for the situation of greeve, but every man has not the qualifications, which fit him for the *management of other men*, or, perhaps, is not sufficiently trustworthy for so responsible a situation. That the requisite knowledge for conducting a farm of 500 acres, may be had for 12*s.* a week—the wages of a ploughman,—and that 1*s.* extra, will command the extra qualifications for a bailiff, speak eloquently what *education has done for the peasantry of this part of Scotland.* I found the greeves, universally, clever, acute, and sensible; and their minds open to what was passing in the world, beyond the limits of their own farm, or immediate neighbourhood.

The farmer's dwelling house is, generally, a little in front of the farm buildings, a neat, comfortable house, with kitchen and flower garden attached.

The farmers, themselves, are men of superior education, manners, and style of living, to the, possibly, equally wealthy ones of the farming counties of England, even Lincolnshire and Norfolk, where the farms are of equal, or greater extent than those of the Lothians. As a class, however, they would compare better with the master manufacturers of Lancashire, so keen and pushing. Few of them are without a handsome phæton, for the use of the female members of their family; they are of most hospitable habits; and I was informed, that, excepting for a month at seed-time, and the same at harvest, they have company at home, or dine out, two or three times a week.

One feature throughout the Lothian farms may be remarked—*a great uniformity in the quality of the crops.* Not, as elsewhere, here, a good farmer, and there, a bad one; here, a failing crop, there, a middling one; and here again, a fine one; but, nearly all the same, showing that farming is there reduced to a science, leaving nothing uncertain but the *seasons*, which, affecting all nearly alike, do not materially disturb the uniformity I speak of.

The present season has been remarkably favourable in the Lothians, as a whole, though somewhat *too dry.* The wheat would average about five quarters* to the acre; and, in the seventy or eighty acres on the same farm, it would sometimes be difficult to point out a square yard which carried more, or fewer ears than the rest of the field.

The farms are divided into fields of 20 to 50 acres each; the hedges are clipt low and thin, and the ditches covered in, so as to occupy as little space as possible. There are no trees in the hedge-rows, and few furrows, the *land being laid down flat*;† and thus, between one thing and another, the entire area of the farm is made productive, and the expense of fences and gates is reduced to a minimum.

Another thing worth noting is, that permanent grass, either as meadow, or pasture, is unknown, or nearly so; the only hay, or pasture, is derived from artificial grass, sown in the regular rotation of crop, which remains two years down, and is then ploughed up and followed by oats. The crops of artificial grass were extremely heavy. I counted, in one field of sixteen acres, no less than 234 sheep, from 150 to 200 of which, had been on the land since the first of April. In another field of the same size, 20 cows; and in both, the feed, chiefly white clover, was abundant, and of the finest quality.

The *rent* of the Lothian farms is from 3*l.* 10*s.* to 7*l. per acre*;‡ and these high rents,

* A quarter is eight bushels.—Ed. Cab.

† Evidence of Mr. Smith of Deanston.—"The drains are placed in the same direction that the furrows were before; *but I have no furrows.* I lay all my fields down without any furrows. I object to furrows, because water is allowed to collect in a body, and thereby ruins the soil." "Yes, they (the drains) answer the purpose of furrows."

‡ These rents have been objected to, as exaggerated, and it is said, that I ought to have given, more precisely, the rents current at different distances from Edinburgh. When the distance from Edinburgh is too great to benefit from the town manure, and daily access to that market, the rent of land experiences a somewhat sudden fall from 6*l.* and 7*l.* to 4*l.*, 3*l.* 10*s.* and 3*l.* per acre. In the West Lothian, the first named rents seem to be current within 3 miles, and the latter within 7 and 8 from Edinburgh. The quality of the land rich and light. The land in East Lothian, at twenty miles distance from Edinburgh, is of a worse quality, part of it stiff in its nature, and has only partially gone through its course of furrow draining. The rents there are lower, and vary again according to the proportion of the farm which may have been drained, as also, whether the whole expense of it, costing from £4 to £8 per acre, has been thrown upon the tenant, or been partly borne by the landlord. A tenant will, of course, not pay the same rent, when he has to lay out 2000*l.* in improvements, as he would have paid, had this expense been incurred by the out-going tenant, or had to be done at the expense of the landlord. On farm No. 8, at twenty miles from Edinburgh, stiff land on which turnips had never before been grown, the tenant furrow-draining (but if at his own expense wholly, or in part, I do not know) the rent I understood to be 47*s.* per acre.

It was not the intention of my letter, as I stated before, to enter into minutiæ of any kind, but merely to call attention to a few striking points connected with the Lothian farming.

the farmers not only pay, *but thrive upon;* indeed, a more thriving set of men I never met with. They are enabled to pay these rents, and thrive, partly, *by the heavy crops arising from skilful cultivation*, and partly, by *economy of management* in every department. Actual wages, however, are as high as in England, namely—10*s.* to 11*s.* a week, for a common labourer; 12*s.* for a ploughman, and nine-pence a day for women, ten hours to the day. As to the great amount of produce, it must be remembered, that *all the land is under the plough.* Five quarters of wheat to the acre, are reckoned a fair average; but some fields turn out six. Ten or eleven quarters of oats, eight to ten tons of potatoes, and twenty-six to thirty tons of turnips, are reckoned good fair crops.

[TO BE CONCLUDED IN NEXT NUMBER.]

In the work of Professor Low, on Scotch Husbandry, will be found a complete account of the most approved modes of furrow-draining, sub-soil ploughing, and other late improvements; and in the evidence given before the Agricultural Committee of 1836, rendered accessible through Mr. Hutt's "Compendium," will be found details of the cost of the different improvements upon every variety of land: and the value of such land, before the improvements, and after. In comparing the rents with those of English farms, allowance must also be made for the land in Scotland being tithe free, and the poor rates, where they exist at all, being very low. After making, however, a fair allowance for all exemptions, I think the land, generally, through the South-eastern, Eastern, and central parts of Scotland, yields 40 to 50 per cent. higher rent to the landlord, better profits to the farmer, and more comfortable subsistence to the labourer, than land of the same natural quality in England; advantages obtained, partly by larger produce, and partly by more economical management.

The following statement, derived from the Evidence of both Scotch and English Farmers, is deserving attention.

Name of Witness.	Rent, Tithe, and Parochial Burthens.			Annual Average Expense per acre.			Total.			Quality of land estimated by average produce per acre in wheat.
	£.	*s.*	*d.*	*£.*	*s.*	*d.*	*£.*	*s.*	*d.*	
ENGLISH.										
Brickwell.	1	15	0	3	19	0	5	14	0	30
Rolfe.	1	11	6	3	13	6	5	5	0	24
Cox.	1	15	0	4	2	2	5	17	2	30
SCOTCH.										
Hope.	2	3	9	2	12	0	4	15	9	29
Bell.	1	8	8	2	0	7	3	9	3	28
Robertson.	1	19	0	2	16	0	4	5	0	30

See "*Remarks on the present state of Agriculture, by* Charles Shaw Lefevre, Esq., *Chairman of the Select Committee on Agriculture. Session* 1836." 11*th Edit.*

It appears from the above table, that the total average expense of cultivation on English Farms, is or was at the rate of 5*l.* 12*s.* 1*d.* per acre, whilst on Scotch, only 4*l.* 3*s.* 4*d.* The produce, per acre, being the same (or rather greater on the Scotch farms,) the Scotchman puts into his pocket 1*l.* 8*s.* 9*d.* per acre, more than the Englishman, which on a farm of five hundred acres amounts to 718*l.* 15*s.* per annum, and this he does, after paying to the landlord a higher rent than would have been paid in England.

From the American Agriculturist.

Butter making in Orange Co., N. Y.

I have delayed until now a compliance with your request, to furnish to you a statement of the progress of butter making, as pursued in our county, with a view to obtain from a number of our best butter makers, the details of their process. As the statements received do not materially differ from each other, or from my own mode of proceeding, I shall give you that.

The milk room.—It is all-important that this should be *cool, dry, and moderately light*, with a *free circulation of air.* Mine is in the cellar of my farm-house, ventilated by means of two windows about two feet square, on the north side, and a like window, and a lattice-door on the south side, all covered on the outside, with wire-gauze, fine enough to exclude the flies. The floor is formed by a layer of small stones, six inches deep, well *grouted*—that is, a mortar of lime and sand, thin enough to run freely, is poured upon the stones until they are entirely covered with it,—and when dry, a thin covering of water-lime cement is put upon it, and made smooth with the trowel. This costs little, if any more than a plank floor, and effectually keeps out both rats and mice; and as water does not injure it, it is easily kept perfectly clean and sweet. The milk-pans stand upon marble slabs, raised upon brick-work, about two feet from the floor, and the butter is worked upon a marble table. A pump is placed at one end of the room, bringing the water through a lead pipe, from the bottom of the well, and the water discharged, runs the whole length of the cellar in a channel prepared for the purpose, when the floor was cemented, and escapes through a fine iron grate, cemented into the floor, over the mouth of the drain. The churn stands in the milk-room, and is

worked by a dog-power machine, on the outside of the building. The milk room should be used exclusively for dairy purposes.

Dairy Utensils.—The cows are milked into wooden pails, not painted on the inside, and kept perfectly neat and sweet. They must be thoroughly cleansed, dried, and aired, morning and evening; and never be used for any other purpose. The pans should be shallow, with the sides much more slanting than the usual pattern of pans which we see at the tin shops, and be kept as bright as silver; they must also be well aired in the sun.

The Milk.—This must stand in the pans, *undisturbed*, until the whole of the cream has risen;—some of our best dairy-women say, until it is "*loppered*," or thick,—both milk and cream are then put into the churn together, at a temperature of about fifty-five of Fahrenheit; the churn is then worked with a rapid stroke, say from 60 to 75 per minute, until the butter "begins to come," when the brake is put upon the wheel, and the churn is worked more and more moderately, until the butter is entirely separated from the butter-milk. Upon taking the butter from the churn, it is washed with cold water, salted, and thoroughly worked with a *wooden ladle*, upon the marble table. It must never be worked with the hand, as the warmth of the hand will injure it. It is then set aside in a cool place, until the next day, when it is again, in like manner, worked until every drop of the butter-milk is extracted. It is then fit for packing away, or for use. The butter must at no time be allowed to get soft. FREDERICK J. BETTS.

Newburg, Dec. 12th, 1843.

For the Farmers' Cabinet.

Sexual character of the Strawberry Plant.

MY DEAR SIR,—The December No. of the Farmers' Cabinet, contains an able paper by Dr. Bayne, of Alexandria, on the Cultivation of the Strawberry. After giving ample directions as to the best mode of preparing the ground and forming the beds, he advises that the finest and most productive varieties should be selected, such as Hovey's Seedling, Female Hudson Bay, Large Lima, Bishop's Orange, and Bayne's Prolific. Believing that every flower of the above kinds is female, he says they will fail to yield abundant crops, unless planted in proximity with the Melon, or some other variety containing perfect anthers.

To this paper of Dr. Bayne's, is appended a series of remarks by the editor of Hovey's Magazine, in which the writer attempts to prove that "there is no necessity of making any distinction in regard to the sexual character of the plants when forming new beds;" "and this," he says, "is now the generally received opinion of all intelligent cultivators."

The little attention I have bestowed on this subject, has fully satisfied me, that the generally received opinion on this point, is erroneous. Mr. Hovey does not deny, that "there may be fertile and sterile beds of strawberries, but the cause of their sterile character," he says, "is to be sought, not in a naturally defective organization of the blossom, but rather in the mode of cultivation applied to the plants." There is a little vagueness in the phraseology of this sentence. Does Mr. Hovey intend to convey the idea, that an improper mode of cultivation will render strawberry plants sterile by causing the blossom to be defective in its sexual organization? or does he mean, that such a mode of culture will render the plants sterile without impairing the sexual character of the blossom? He probably means the former; for he immediately adds, "It is well known that all flowers have a tendency to become double, and when this takes place, it is also known that the stamens are transformed into petals." This remark cannot apply to the strawberry; for who ever saw or heard of a double strawberry flower? The nearest approach to it I ever met with, was in Turner's late Pine. In the blossom of this variety, I have seen eight petals; even here, however, the stamens were unusually perfect. Mr. Hovey is wrong in saying, that *all* flowers have a tendency to become double. If he had said some flowers, or many flowers, have this tendency, his remark would have been unexceptionable. He goes on to say, "now somewhat such a change," [what change—the conversion of stamens into petals?] "undoubtedly takes place in the strawberry, when under a high state of cultivation, or forced by too much nourishment to extend its runners too far. Repletion is fatal to the perfection of the blossom, though it may produce apparently vigorous growth." Here again, I think Mr. Hovey errs. Repletion may be fatal to the *production* of the blossom, but not to its *perfection*. In other words, culture will not alter or modify the sexual organization of strawberry plants, though it may prevent the formation of fruit buds.

The terms male and female, as applied to certain kinds of strawberries, are, strictly speaking, somewhat incorrect; though, for practical purposes, they should be fully recognized.

Every variety of strawberry possesses in the same blossom, both male and female organs, either perfectly or imperfectly developed. This imperfection is *natural* to the kind, and is altogether independent of any artificial or extraneous influences.

In one class, the male organs are so exceedingly defective, as wholly to disqualify them for the performance of their appropriate functions. These varieties then are to all intents and purposes, female, although *traces* of the staminate organization are still perceptible in them. Some of our largest and finest kinds are included in this class; such as Hovey's Seedling, Bayne's Prolific, large Lima, Hudson, Bishop's Orange, Spurious Keen's Seedling, Mercer, and many others, including all of the Hautbois I have met with, excepting the Sterile Male, and the Conical.

A second class includes those kinds which are so defective in their pistilate organization, as to prevent the formation of fruit, even though the anthers yield pollen in abundance. These kinds are in effect males, and are so designated. Though the pistils are here not wholly wanting, their organization is insufficiently developed for sexual purposes. The different varieties of this class being sterile, are unprofitable and so little prized, that they are mostly nameless. Two years ago, I met with a strawberry plant that came from the forests of Maine, attached to the root of a Balm of Gilead. The first summer it extended itself so as to form about a dozen plants. Most of these blossomed last summer; but every blossom of every plant was so defective in its pistillate developement, that not a single fruit was formed; although the plants were healthy looking, and yielded a profusion of pollen. That this pollen was sufficiently active for the performance of its appropriate function was evidenced by the fact, that it readily impregnated Hovey's Seedling and the White Wood, to which it was applied. In both of these instances, after the fruit matured the seed was planted, and several of the plants are now growing. I likewise reversed the experiment, by supplying several blossoms of this Maine strawberry, with pollen from other kinds, but without effect. On visiting the garden of a friend last summer, I saw a strawberry-bed containing probably ten thousand plants. Many of them being in blossom at the time, I noticed that the stamens were unusually abundant with imperfection of the pistils. I expressed surprise at seeing such a bed of male plants. The owner then remarked, that this kind had been in his possession several years, and had not borne fruit.

A third class of strawberries includes a great variety of kinds, which have both the male and female organs perfect in the same blossom. This class contains some of our finest and best varieties; such as Keen's Seedling, Elton, Myatt's Pine, Knevet's Pine, Old Pine, Old Scarlet, Swainstone Seedling, Turner's Pine, Conical Hautbois, the Alpines, the Woods, and very many others. A single plant of this class, will produce fruit when completely isolated. A single plant of either of the other two classes, will not fruit under similar circumstances. On this point I have fully satisfied myself, by repeated experiments. Occasionally, it is true, a freak of nature will so far perfect the defective organs of varieties of the first and second class, as to produce fruit; but this so rarely takes place, as not to invalidate the rule probably once in a hundred cases. But to arrive at correct results in these investigations, it is absolutely necessary that the isolation of the plants should be complete. To say nothing of the agency of the wind, the pollen may be conveyed by insects to a distance of many miles. I have carried this pollen after it had been removed from the anthers, upwards of twenty miles, without impairing its activity. If then a bed of Hovey's Seedling, or any other female strawberry, should be unproductive one year, and productive the next, this fact, abstractly, does not afford conclusive evidence of self-impregnation. Let, however, these plants be completely isolated, then and then only, can satisfactory conclusions be arrived at.

The three divisions, then, into which the various varieties of strawberries may be classed, may be designated as the staminate, the pistillate, and the stamino-pistillate. The staminate being those in which the male organization alone is perfect;—the pistillate, those in which the female organization alone is perfect; the stamino-pistillate, in which there is a perfect developement of both the male and female organs.

These remarks are the results of a series of careful and minute observations and experiments, made in forming new varieties of strawberries, by cross-impregnation. Should the experiments in connection with this subject, in which Mr. Hovey is now engaged, lead to conclusions essentially at variance with those I have now given, I trust the Philadelphia Horticultural Society will appoint a committee for the purpose of fully investigating this subject.

Very truly, yours,

W. D. Brinckle.

Philadelphia, Jan. 16th, 1844.

For the Farmers' Cabinet.

Report on Crops.

The Committee on Crops for 1843, appointed by the Philadelphia Society for promoting Agriculture, make the following report:

In the performance of their duty, they have examined all crops whenever notice was given, and they take much pleasure in informing the Society, that the appearance of the farms they have visited, denotes that the science of Agriculture is keeping pace with the improvements of the age; and embraced within the circuit of the Society, we find farms, whose fair fields and luxuriant crops give such evidence of persevering industry and laudable ambition to improve, that we should do injustice to the agricultural interest not to notice them at this time.

Your Committee would notice in the first place the farm of James Gowen, at Mount Airy. This place and its productions have often received honorable and well deserved notice. Agriculture (particularly in this vicinity) owes much to this gentleman. We saw here the once barren hills, which by his exertions are now clothed in verdure, the valley and the morass rendered fertile, and made to yield their proper share of produce. Indeed, every thing on this farm, speaks of science and proper management. Your committee had the pleasure of viewing in the progress of its growth at this place, one of the most beautiful fields of Indian corn that was probably ever grown in this vicinity; certainly the best raised under the same circumstances. The ground was very hilly, and by almost any other person, would have been considered useless; but by this gentleman's perseverance, it was made to yield a crop, the admiration of all who saw it. Unfortunately, however, a severe storm prostrated the most of it, which in consequence did not ripen to perfection. The crop of wheat also claims especial notice; this, as indeed all the crops, exhibited great perfection in the system of farming. Your Committee also visited the farm of Isaac W. Roberts of Lower Merion township; here also were plainly to be seen evidences of the successful agriculturalist—the ground was all in the highest state of cultivation. Useless vegetation had no chance for growth. Each field was occupied by only what the master intended should grow; neatness and order were observed in every thing. A very fine field of wheat, and also one of corn, were examined on this farm, that would have given satisfaction to the most fastidious observer. Your Committee also examined a very fine field of wheat and mercer potatoes raised by Lewis Willard on the Hospital farm; the cultivation here also is deserving of honourable notice, exhibiting a correct knowledge of what is required to be a successful farmer. Your Committee would also notice a very fine crop of Indian corn, raised by William Blackburn, on his farm near Frankford. This place gives evidence that the merchant can also be a good farmer, and that agriculture requires the action of the mind as well of as the body. Your Committee would also notice a fine crop of ruta baga turnips, raised by Samuel S. Richie, but not of sufficient quantity to entitle them to the premium. They would also notice very fine crops of wheat, corn, oats and potatoes on the Olney farm, of Samuel C. Ford. Also very fine sugar parsnips raised by Henry Chorley, on the Scott farm; a very five crop of ruta baga turnips, on the farm of John Hunter, at Blockley. Also wheat, oats and ruta baga turnips on the Clapier farm, by James Robinson; he deserves great credit for the manner in which these crops were cultivated, exhibiting a very correct knowledge of his business. Your Committee attended to the measuring of his crops of ruta bagas, a very good yield for the season, which was not favourable to their production, but not of a character to entitle them in the opinion of your Committee to a premium. Your Committee would also notice a very fine crop of rye on the farm of Ephraim Holbert, but being in separate fields is not entitled to a premium.

Your Committee regret, that from some misunderstanding, although they were always ready to attend, and gave public notice to that effect, they were not called upon by any of the competitors for the premium on grain crops, to attend to the measuring of the grain at the time of gathering. They have come to the conclusion not to award premiums on wheat, rye, oats or corn. The condition of many of the crops examined while in a state of growth, gave evidence of unusually large yields, and this has been sustained by the certificates of the producers; but your Committee believe they will have performed their duty, by awarding premiums only, after a careful examination in person by one or more of the Committee. Accordingly they have awarded premiums as follows:

To James Gowen, for the best sugar beets, one acre 1078 bushels of sixty pounds to the bushel, $8.

To Lewis Willard, for the best acre of Mercer potatoes, 426 bushels, $8.

To Henry Chorley, for the second best acre do', Colman's Agricultural Tour, $4.

To James Gowen, for the best quarter acre

of sugar parsnips 868½ bushels to the acre, of forty pounds to the bushel, $8.

To James Gowen, for the best quarter acre of field carrots, 687 bushels to the acre, of forty pounds to the bushel, $8.

To Samuel S. Richie, second best quarter acre of field carrots, Colman's Agricultural Tour, $4.

The statements of the different competitors will be laid before you, describing the manner of cultivation and the yield. Your Committee congratulate the Society upon the generally improved appearance of the farms in this vicinity, giving evidence of science and skill in cultivation; and fully sustaining the high standing of Philadelphia county as an agricultural district.

Samuel C. Ford,
Henry Chorley,
Samuel S. Richie,
Manuel Eyre, Jr.
Cornelius J. Smith,

Committee on Crops for 1843.

Philadelphia, Feb. 6th, 1844.

From the Louisville Journal.

Culture of Coffee.—The cultivation of coffee is simple, and I see no reason why it could not be advantageously introduced in our Southern States. It flourishes well on the Jamaica mountains, at a height above the sea, where the climate is quite as cold as South Carolina, Georgia, or Louisiana. The labour is very light. The tree, when once planted, will bear thirty, and sometimes fifty years, with scarcely any attention. The preparation for market is very simple, and can be performed by children. It would be equally profitable with cotton, and I think far more so than either rice or sugar, without the sacrifice of health attending the cultivation of the former, or the terrible using up of flesh and muscle, demanded by the latter. The only point to be ascertained is, whether it will bear the climate of our Southern States; if so, there can be little doubt that for productiveness and facility of culture, it will be preferable to any other Southern crop.

S. B. Parsons.

Flushing, Long Island, Nov. 23rd, 1843.

THE FARMERS' CABINET,
AND
AMERICAN HERD-BOOK.

Philadelphia, Third Month, 1844.

It has been said that every man who has a foot or two of ground, may raise his own grapes: abundance too, has been said from time to time, recommending the farmer and the citizen to supply themselves with a stock of *bees*, and thus enable their families to luxuriate on the fruit of their labours; and we have been ready to conclude that every one who has a spare window, whether in town or country, may make his own honey, if he chooses to do so.

On the 11th of Third month, of last year, while the weather was cool, the editor was furnished by his friend Jeremiah Comfort, of Spring Mill, with a swarm of bees in a very simple box, or rather in two glass boxes, each about eleven inches square, and nine inches deep, communicating with each other by a couple of holes in the top of the lower box, and accompanied by tight covers, somewhat larger than the boxes in which the bees were living, so as to exclude the light from them. They were placed in the second story of our residence, at the window of the bath room, on a stand made to support the hive, the entrance for the bees being under the window sash, which was raised a little for the purpose. Here they have stood ever since, apparently as contented, and just as industrious as if in a hollow tree in their native forest, or as if in a more classical position on Mount Hymettus. Through their busy season of summer, they were a source of great amusement and interest to the editor and his family, a day rarely passing, but the covers were two or three times removed to watch the rapid movements and efficient labours of these admirable creatures. The light to which they were exposed, when the covers were off, did not appear to annoy them in the least, as all their operations continued as if undisturbed.

Strong indications of swarming were exhibited for several days previously to the 17th of Sixth month, last; on that day, about one o'clock, while the editor was in the bath room, and the covers were off the glass cases, the customary steady, quiet movements of the colony, were in an instant, and quick as thought, changed to the hum peculiar to the occasion, and thousands of those which happened to be near the outward passage, were on the wing, and hurry, and bustle, and confusion, as if their very house was on fire, indicated that pell-mell resigned within. The greater part of the swarm remained thus on the wing for five or ten minutes, when they gradually settled directly under the window sill, and immediately commenced returning into their box. All was soon again quiet, and so remained till next day, when about noon, the same manoeuvres began, and closed in the same way: they settled in the same spot, and again retired into their old home. Now a curious question presents itself, and we ask, why were these two fruitless demonstrations made? Had the queen—which, by the way, we obtained a sight of but once through the whole summer—overrated her powers? Did she come out, expecting to lead off her dependants in fine style, and from some cause or another, find herself unable to leave the window sill? and did her dependants, discovering this, instinctively cluster around her there? or did the scouts—the pioneers, sent out to reconnoitre,—happen to return just at these junctures, and report that no resting place had been found for the sole of their foot? We leave these points to be settled as best they may, by Huber, and Huish, and Bevan, and our friends Affleck and Comfort, and proceed to state

that next day, about eleven o'clock, similar movements precisely were observed, and after being on the wing for ten or fifteen minutes, they settled on the front of a tight board fence, say thirty feet from the hive they had left. A kind neighbour, who had less the fear of them before his eyes, than ourself, having the head and breast protected by a vail, and the hands with gloves, quietly scraped them into the two compartments of a glass hive, similar to that from which they had emigrated. It was placed on a table near by, and those which had been left on the fence, or which had been thrown on the ground, gradually gathered to it, and all soon became quiet. In the evening it was moved to the place designed for it in the yard, directly under the parlor window, where it still remains. They went immediately to work, and made through the season, 35 or 40 lbs. of honey, all of which was left for their subsistence during the winter: they are now in fine condition, and will not consume more than two-thirds of their provender. Small boxes were subsequently, at different times, placed on the top of the old hive in the bath room, and after those below, in which the bees live, were well filled, they went to work and filled the smaller ones. On the 30th of the Eighth month, two were taken off weighing 19 lbs., and another put in their place. This was removed on the 26th of the month following, and weighed 5 lbs. So that the original swarm which cost $5, threw off another fine colony, and yielded beside, 24 lbs. of delicious honey.

Several of our friends are successful with their bees in Philadelphia; and our own *plantation* at least, shows that even in the heart of a populous city, the industrious habits of the honey bee do not forsake her.

The box brought by J. Comfort, and to which we are exceedingly partial, is as simple as such a thing can well be: to this recommendation of simplicity, is added the entire facility with which the operations of the interior may be at all times, and safely observed.

At the time of swarming, we believed that considerably more than half the bees left the box in the bath room, and went with the new colony. Who gave the watch-word when to move? and in what way was it decided who should go, and who remain?

We have received a letter from William Henry Sotham, in relation to the questions put to him by a writer in our last number, under the signature of "Fair Play." He complains that a name is not given:—we are acquainted with "Fair Play," and know well the responsibility of his character. The questions were asked in all fairness, and solely with a view to have the position of W. H. Sotham more accurately defined. The writer of the questions, does not apprehend that his anonymous character ought to shut him out from the privilege of being explicitly answered.

We have not lately met with an agricultural letter that has afforded so much interest as that sent us by Dr. Mease, on "*Scotch Farming in the Lothians.*" The Doctor will please accept our thanks for his kindness, as well as the thanks of our readers, who, we are satisfied, will gather from the letter, valuable hints and subjects for sober reflection. We feel decidedly partial to many of the plans of our own country, and have so much confidence in the shrewdness of our farmers, as to believe they understand their business pretty well, and have so studied their position as to have judiciously accommodated their plans to it—yet, there is unquestionably much still to be learned, even by the wisest and thriftiest cultivator among us. We apprehend "the great deficiency with our best farming," is not only "economy of management," but also "weight of produce." The writer of the letter says, that on some farms in England, "it might be difficult to increase the produce." Where are the farms in this country, of which a similar remark might be justly made?

One hundred thousand tons of potatoes—probably 4,000,000 of bushels—were sent last year to the London market from the county of Perth, which lies above Edinburgh, between the 56th and 57th degrees of north latitude. According to the published returns, the whole State of Pennsylvania, raised in 1842, less than 13,000,000 bushels. The concluding part of W. R. Greg's letter will be given in our next number.

The growing of Wool is becoming every day of increased importance, and in almost every district of our widely extended country, the attention of the people is directed to it. From Vermont to Carolina, and from the sea-board to Mississippi, and the Western Prairie, particular facilities are claimed, and particular inducements offered for further investments of capital in sheep husbandry. A late number of the South Western Farmer, published at Raymond, Miss., says, "We conceive that in a few years, wool growing will be only second to that of cotton in our State." The attention of our Eastern farmers has been of late, considerably turned to the West, in reference to this branch of their business; and should the experiment—which is yet to be still further tested—of wintering sheep on the wild and natural grasses of the prairies, succeed even tolerably well, their multiplication may be almost without limit, and certainly to an extent equal to all the demands of the country.

We hope the articles on Sheep Husbandry—Wool Growing and Sheep-walks, from the Delaware Journal and the National Intelligencer, which appear in this number, and both of which were forwarded for publication in the Cabinet, will not be found to occupy more room than is appropriate to these subjects.

The promised work now in course of preparation on the *Diseases of Cattle and Sheep*, by our friend J. S. Skinner, and to be shortly published by Lea & Blanchard, of this city, will, we have no doubt, add to the already well acquired reputation of its editor.

We have received the first number of the Western Cultivator, edited by W. Thompson Hatch, and published at Indianapolis, Indiana. It appears in neat pamphlet form, and is filled with matter useful to the farmer.

"Observations on Vegetable and Animal Physiology," by Dr. William L. Wight, of Virginia, has been kindly forwarded. The earnestness and tact with which the Doctor pursues his subject, are two efficien means in making it interesting to his readers.

The subject of "Better Butter," has at various times within the last year or two, claimed the attention of several of our correspondents; and it is perhaps by all admitted that we need in this city, a better article for winter use, than is supplied by our own Pennsylvania farmers. The matter is again brought to the notice of those interested, by the communication of "Index," which is our leading article for this number of the Cabinet. It is very much to the purpose, and bears directly upon the every day operations of the dairyman, and in the practical results to which it points, is certainly of no trifling importance, both to the farmer and his customers. "What we want," says *Index*, "is just what it is greatly to the interest of the farmer to supply." Why then, may we ask, should not the requisite attention be given to the subject? Will not the farmers of our interior be persuaded to bestow more care in the preparation of their *tub* and *roll butter*, when they can hardly help being aware of the fact, that this additional care will double its price? Why should they suffer thousands, and tens of thousands of dollars, to be sent annually from this city to New York, for a superior article, which themselves ought certainly to supply, and thus receive the money into their own purses? It cannot for one moment be urged, that the rich pastures of our interior, or that our dairy stock are incompetent, with proper management, to produce as fine and richly flavoured butter as the New Yorker ever saw, or as the Philadelphian would wish to place on his table. And will the farmer, or his wife and daughter sit still, and consent that their lack of skill shall compel us to the use of a very inferior article, or else to seek a better from another State, the very best of whose productions, it should be our ambition not only to equal, but to excel?

We would suggest to our Agricultural Society, whether they might not make a move in the premises that would lead to beneficial results: a handsome premium offered for half a dozen tubs of the best grass made butter for winter use, we apprehend would bring into our market, a far better article of our own manufacture, than we are accustomed to find. Competitors might be confined to citizens of this State, New Jersey and Delaware, who are too far distant from Philadelphia to attend its market with their pound butter, and who are consequently obliged to pack it in tubs, for winter use.

The season for the application of Poudrette, either on wheat, corn, vegetables, or grass, &c., is now at hand. We would refer our friends to several letters on this matter, from Dr. Emerson, of this city, R. B. Coleman, of the Astor House, New York, and T. B. Townsend, of Long Island, which will be found in the Cabinet for the First month last, as well as to the advertisement in the present number.

A memoir on the Origin, Cultivation and Uses of Cotton, from the earliest ages to the present time, by Whitemarsh B. Seabrook, President of the State Agricultural Society of South Carolina, has been received, and we are indebted for it to some unknown hand.

Time has only been found to glance at its contents, but we perceive at once, that it is rich in its statements of facts, and shows the author's very thorough acquaintance with the subject on which he writes.

If our friend Breck, of the New England Farmer, will take the trouble to look over the article from the Cabinet, which appeared in his paper on the 29th ult., in relation to quart-bottle churns, &c., he will find, as we think, no reason why the inference should have been drawn, that the facts stated in that article had occurred in Pennsylvania. At any rate, if there is ground for such an inference, the fault is ours, not Pennsylvania's. The circumstances did not occur in this State; nor do we believe they *could* have occurred here. But where they did occur, we would be excused from mentioning.

Joseph Gillott, the great manufacturer of steel pens, residing at Birmingham, England, has been engaged in the business for the last twenty-two years, and by repeated experiments has brought the manufacture of this article to a state of great perfection. The number of pens made at his works in 1841 was 62,126,928, and in 1842, the number was 70,612,392.

Three packages of Seeds have been received from H. L. Ellsworth, of the Patent office, Washington. He will please accept our acknowledgments for his kindness, with the assurance that they shall be distributed where they will be appreciated. Our friends who are curious in these things, will please call.

Died at his country residence, Andalusia, Bucks co., Pa., on the morning of the 27th ult., in the 50th year of his age, Nicholas Biddle, for several years President of the Philadelphia Agricultural Society.

Wheat is worth from $1 to $1 05, Rye, from 65 to 68 cents; Corn, from 45 to 50 cents; Oats, from 30 to 33 cents; Wheat-flour, $5 to $5 50; Rye do. $3 25 to $3 50: Clover-seed, $5 to $6. Cotton is worth 10 to 10½ cents; and Wool from 35 to 42 cents; Mess-beef, $10: do. pork, $8.

In our last number a list was given of the premiums to be awarded by the Pennsylvania Horticultural Society, at its stated meeting, on the 21st inst. The following will be awarded at the stated meeting on the 16th of next month, viz:

For the best Pelargoniums, (Geraniums,) ten named varieties, in pots, $3.

For the next best, do. do. $2.

For the best Hyacinths, ten named varieties to be exhibited, $3.

For the next best do. do. $2.

For the best Pansie, six varieties to be exhibited, $1.

For the next best do. do. $1.

For the best Auriculas, four named varieties to be exhibited, $3.

For the next best do. do. $2.

For the best Polyanthus, six named varieties to be exhibited, $3.

For the best forced Cucumbers, not less than four in number, $3.

For the best Sea Kale, not less than two bunches of one pound each, $3.

☞ SHORT ADVERTISEMENTS, ☜
The subject matter of which, may correspond with the agricultural character of this paper, will be inserted at the rate of one dollar for each insertion of ten lines or less; and so in proportion for each additional line. The money to be paid in advance.

Dr. Kirkbride is entitled to our thanks for his "Report of the Pennsylvania Hospital for the Insane," for the past year, published by direction of the Board of Managers.

Those who take pleasure in the advanced comforts of the afflicted, cannot fail to rejoice at the change which has been introduced into our best Institutions, within the last quarter of a century, in relation to the treatment of Insanity. The prevailing disposition also, in the community, to assign to this disease its proper position among those to which we are liable, is cheering to such as are labouring for its melioration, and whose experience and acquaintance with it in its different forms, confirm them in the conviction that it is with proper treatment, in a very large majority of cases, *curable*. "It should never be forgotten," says the Doctor, "that every individual who has a brain, is liable to insanity, precisely as every one who has lungs, is liable to pneumonia; or as every one with a stomach, runs the risk at some period, of being a martyr to dyspepsia." How greatly then is each one of us interested in the prevalence of a correct public opinion, respecting the true nature of this malady, and in the proper management of those Institutions which have been "prepared and endowed by enlightened benevolence, and provided with all the conveniences and fixtures likely to contribute to the restoration and comfort of their inmates!"

The average number of patients in 1843, was 132; and the whole number under care during the year, was 258; and of these 68 were discharged, *cured*, and seven much improved.

From the whole tenor of the Report, we have formed a high opinion of the general economy of the Institution, and of the high character of that intelligence which has devised, and so successfully carries into operation, a system remarkably calculated to diminish the aggregate of wretchedness, and to infuse in its place, the cheering influences of hope. A convincing proof of the efficiency of that system is afforded in the fact, that more than one half the average number under care last year, were discharged, *cured*. The sentiment is a cheering one, that is confidently advanced by Doctor Kirkbride, that "no case of insanity should be deemed hopeless, that has not been more than a year under treatment." The result of experience is, "that at least eighty per cent. of all cases promptly and judiciously treated, recover." A highly interesting part of the Report assures us, that "during several months of the past year, a well conducted weekly paper was regularly issued from one of the wards. It originated entirely with patients—was conducted solely by them—the contents were almost wholly original, and from their pens, and the tone of the paper, and the leading articles would compare very favourably with much of the periodical literature of the day."

Restraint, we know, is in many instances indispensable—but how much more satisfactorily does the mind dwell upon the amusements and enjoyments of the insane, than upon the straight jacket and the strap.

☞ TO RENT—and possession given on the 1st of fourth month next, a small Farm near this city, which has been occupied for some years past as a Milk Farm. Apply at the office of the Farmers' Cabinet.

FRUIT AND ORNAMENTAL TREES, EVERGREENS, SHRUBBERY, &c.,

In great variety, for sale as heretofore, by the subscriber, at his Nursery, near Haddington, four miles west of Philadelphia. Orders sent by mail, or left at the office of the Farmers' Cabinet—where Catalogues may be obtained—will be attended to, and the trees well packed, when ordered to distant places. City gardeners supplied with trees suitable for the streets, at a liberal discount. SAMUEL RHOADS.

Third mo. 15th, 1844.

We keep on hand at this office, and will supply our friends with Agricultural works generally. Among which are

THE FARMER'S ENCYCLOPEDIA, full-bound in leather;—Price	$4 00
YOUATT ON THE HORSE, with J. S. Skinner's very valuable Additions;	2 00
THE AMERICAN POULTRY BOOK;	37½
THE FARMER'S LAND MEASURER;	37½
DANA'S MUCK MANUAL;	60
Complete sets of the FARMERS' CABINET, half-bound, 7 vols.	5 75
BEVAN on the HONEY BEE,	31¼
JOHNSTON'S Agricultural Works.	
LIEBIG'S AGRICULTURAL CHEMISTRY,	25
" ANIMAL CHEMISTRY,	25
" FAMILIAR LETTERS,	12½

As well as his larger works on Chemistry and Agriculture.

Subscriptions will be received for Colman's Agricultural Tour in England and on the Continent.

☞ We are prepared to bind books to order.

☞ We would like our subscribers to remember, that every facility is offered for the transmission of the small sums due us, in the authority given by law to post-masters, to frank remittances to publishers. The Farmers' Cabinet owes much to the kindness and courtesy of post-masters in this matter, and it affords us pleasure, thus publicly to acknowledge it.

FOR SALE.—A fine BULL, three years old this spring—out of an imported Alderney Cow, and by Mr. Kelly's Durham Bull.—Apply to Robert Reed, at Woodside, Blockley, near the Columbia Inclined plane.

March 8th, 1844.

The quantity of rain and melted snow which fell during the Second month, (Feb.,) 1844, was nearly an inch and a half. ..... 1.449 in.

Penn. Hospital, 3rd mo. 1st.

The thermometer during the last month, was at one time at sun-rise, but 10 degrees above zero; and only about *four* inches of snow have fallen at any one time in this city, through the past winter.

This is the season for transplanting trees. We are aware that there are some things to discourage the farmer in relation to his orchards: but *persevere*. There is hardly an outlay that will pay better: and let it be remembered by the man who is looking forward to planting an orchard some day, that its postponement for a twelvemonth, is a year, so far as respects this part of his plans, irrecoverably lost.

Agricultural Implement Manufactory,

No. 196, Market street, two doors above Sixth street, and two doors below the Red Lion Hotel:

Where are manufactured and for sale, lower than can be purchased elsewhere, Horse Powers and Threshing Machines, Fanning Mills, Corn Shellers, Straw and Hay Cutters, Horse Rakes, Ploughs, Harrows, Cultivators, Seed Planters, Cheese Presses, Churns, Pumps, and every kind of farming implement generally in use. Also, Beach's Self-sharpening Plough and castings—and Wiley's two-pointed do. Every description of implement made to order, or repaired by experienced workmen, and warranted. Slater's Patent Corn Sheller and Grinder. EDWIN CHANDLER,

Agent for Agricultural Machines of every description.

POUDRETTE—a valuable manure—of the best quality, prepared in Philadelphia, for sale at the office of the Farmers' Cabinet, No. 50, N. Fourth street, or at the manufactory, near the Penitentiary on Coates' street. Present price, $1 75 per barrel, containing four bushels—$5 for three barrels—$15 for ten barrels, or thirty cents a bushel. Orders from a distance, enclosing the cash, with cost of porterage, will be promptly attended to, by carefully delivering the barrels on board of such conveyance as may be designated. Farmers to the South, and in the interior, both of this State and New Jersey, are invited to try the article. It has been used to great advantage as a top-dressing on wheat in the spring. For corn in the hills, and for vegetables generally, there is perhaps nothing superior to the Poudrette. Truck growers in New Jersey, and elsewhere, whose interest it is, to have their vegetables, melons, &c., early in the market, will find this manure of great importance. The price will probably be advanced the 1st of April. D. K. Minor.

WANTED.—An industrious, thorough-bred farmer;—a single man would be preferred. One who can work, and is competent to direct others, may hear of a good situation, by applying at the office of the Farmers' Cabinet. Recommendations as to character and capability, will be required.

Feb. 3rd, 1844.

WHOLESALE & RETAIL SEED & IMPLEMENT WAREHOUSE.

Constantly for sale, Corn Shellers of every variety, for hand or horse power; Straw and Corn-stalk Cutters, of different patterns, from $5 to $30 each. Grain Fans, of various kinds, from $8 to $30 each;—Corn Crackers, Sausage Cutters, Sausage Stuffers, Apple Parers, Churns on a new plan, which are cheap and good;—Self-sharpening Premium Ploughs;—Subsoil Ploughs; Agricultural Furnaces; Cooking Stoves, &c., for sale low, by D. O. PROUTY,

No. 176, Market street, above Fifth, Philad.

PHILADELPHIA SEED STORE,

No. 23 MARKET STREET.

M. S. Powell keeps a constant supply of Clover and other Grass Seeds. Also, Northern Seed Barley; Potatoe Oats, crop 1843, weighing 40 lbs. to the bushel; Seed-corn,—among which are, Cooper's Celebrated Prolific Corn, &c. &c.

☞ GARDEN SEEDS generally.

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Terms.—One dollar per annum, or five dollars for seven copies—*payable in advance.*

All subscriptions must commence at the *beginning* of a volume. Having lately struck off a new edition of one or two of the former numbers, which had become exhausted, we are now able to supply, to a limited extent, any of the back volumes. They may be had at one dollar each, in numbers, or one dollar twenty-five cents half-bound and lettered.

For five dollars paid in advance, a *complete set* of the work will be furnished in numbers, including the eighth volume. The whole can thus readily be forwarded by mail. For twenty-five cents additional, per volume, the work may be obtained neatly *half-bound and lettered.* Copies returned to the office of publication, will also be bound upon the same terms.

By the decision of the Post Master General, the "Cabinet," is subject only to newspaper postage: that is, one cent on each number within the state, or within one hundred miles of the place of publication out of the state,—and one cent and a half to any other part of the United States—and Post Masters are at liberty to receive subscriptions, and forward them to the Publisher under their frank—thus affording an opportunity to all who wish it, to order the work, and pay for it without expense of postage.

Joseph Rakestraw, Printer.